



**CONTRACT DOCUMENTS FOR**

**#18RFP1032018K-DJ**

**Membrane System for Big Creek Water Reclamation  
Facility Expansion**

**For**

**Department of Public Works**

## OWNER - CONTRACTOR AGREEMENT

### 18RFP1032018K-DJ Membrane System for Big Creek Water Reclamation Facility Expansion

**Contractor: Kubota Membrane USA**

**Project No. 18RFP1032018K-DJ**

**Address: 11807 North Creek Parkway S,  
Suite B-109  
Bothell, WA 98011**

**Telephone: 425-898-2858**

**Contact: Diego Ayala**

**Facsimile: N/A**

THIS AGREEMENT is effective as of the 13<sup>th</sup> day of July, 2021, by and between Fulton County, a political subdivision of the State of Georgia (hereinafter called the "County"), and the above named CONTRACTOR in accordance with all provisions of this Construction Agreement ("Contract"), which consists of the following: Owner-Contractor Agreement, Owner's invitation for bid, instructions to bidders, bid form, performance bond, payment bond, acknowledgments, general conditions, special conditions, scope of work and specifications, plans, drawings, exhibits, addenda, Purchasing forms, Office of Contract Compliance Forms, Risk Management insurance provisions forms and written change orders.

The specific Exhibits of this Contract are as follows:

- Exhibit A: General Conditions
- Exhibit B: Special Conditions
- Exhibit C: Not Applicable (N/A)
- Exhibit D: Cost Proposal
- Exhibit E: Not Applicable (N/A)
- Exhibit F: Scope of Work and Technical Specifications
- Exhibit G: Project Schedule
- Exhibit H: Purchasing Forms
- Exhibit I: Office of Contract Compliance Forms
- Exhibit J: Risk Management Insurance Provisions Forms

WITNESSETH: That the said Contractor has agreed, and by these present does agree with the said County, for and in consideration of a Contract Price of **Twenty One Million, Two Hundred Thirty Three Thousand, Seven Hundred Dollars and Zero Cents, (\$21,233,700.00)**, and other good and valuable consideration, and under the penalty expressed on Bonds hereto attached, to furnish all equipment, tools, materials, skill, and labor of every description necessary to carry out and complete in good and workmanlike manner, the Work specified, in conformance with the Drawings and the Specifications hereinafter set forth, which Drawings and Specifications together with the bid submittals made by the Contractor, General Conditions, Special Provisions, Detailed Specifications, Exhibits, and this Construction Agreement, shall all form essential parts of this Contract. The Work covered by this Contract includes all Work indicated on Plans and Specifications and listed in the Bid entitled:

Project Number: 18RFP1032018K-DJ  
Membrane System for Big Creek Water Reclamation Facility Expansion

The Contractor, providing services as an Independent Contractor, shall commence the Work with adequate force and equipment within 10 days from receipt of Notice to Proceed ("NTP") from the County, and shall complete the work before October 28, 2024. The Contractor shall remain responsible for performing, in accordance with the terms of the Contract, all work assigned prior to the expiration of the said calendar days allowed for completion of the work even if the work is not completed until after the expiration of such days. If applicable to the Contract, the Contractor shall agree that in the performance of this Contract, it will comply with all lawful agreements, if any, which the Contractor has made with any association, union or other entity, with respect to wages, salaries and working conditions.

The Contractor agrees that if the date of Substantial Completion is not attained, the Contractor shall pay the Owner two thousand dollars (\$2,000), not as a penalty, but as liquidated damages for each day that Substantial Completion of the Work extends beyond the date of Substantial Completion, to the extent of Contractor's fault. At the County's convenience, and not to its prejudice, the County may provide written notice of the commencement of the assessment of liquidated damages.

As full compensation for the faithful performance of this Contract, the County shall pay the Contractor in accordance with the General Conditions and the prices stipulated in the Bid, hereto attached.

It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and the Surety Bonds hereto attached for its faithful performance, the County shall deem the surety or sureties upon such bonds to be unsatisfactory, or, if, for any reason, such bonds cease to be adequate to cover the performance of the Work, the Contractor shall, at his expense, within five days after receipt of notice from the County so to do, furnish an additional bond or bonds in such form and amount, and with such surety or sureties as shall be satisfactory to the County. In such event no further payment to the Contractor shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the Work shall be furnished in manner and form satisfactory to the County.

County and Contractor acknowledge and agree that the Phase 1B services which make up an integral part of this Project commenced prior to the execution and delivery of this Agreement and were performed pursuant to that certain Contract Agreement between the parties dated July 11, 2019 (Contract No. 18RFP1032018K-DJ). County and Contractor acknowledge and agree that all Phase 1B services shall now and hereafter be deemed to be a part of the work under this Agreement and shall be governed by the terms and conditions of this Agreement and Contract Documents.

This Contract constitutes the full agreement between the parties, and the Contractor shall not sublet, assign, transfer, pledge, convey, sell or otherwise dispose of the whole or any part of this Contract or its right, title, or interest therein to any person, firm or corporation without the previous consent of the County in writing. Subject to applicable provisions of law, this Contract shall be in full force and effect as a Contract, from the date on which a fully executed and approved counterpart hereof is delivered to the Contractor and shall remain and continue in full force and effect until after the expiration of any guarantee period and the Contractor and his sureties are finally released by the County.

This agreement was approved by the Fulton County Board of Commissioner on **10/7/2020 Item # 20-0709.**

[SIGNATURES NEXT PAGE]

**IN WITNESS THEREOF**, the Parties hereto have caused this Contract to be executed by their duly authorized representatives as attested and witnessed and their corporate seals to be hereunto affixed as of the day and year date first above written.

OWNER:

**FULTON COUNTY, GEORGIA**

DocuSigned by:

*Robert L. Pitts*

Robert L. Pitts, Chairman  
Fulton County Board of Commissioners

CONTRACTOR:

**KUBOTA MEMBRANE USA**

DocuSigned by:

*Hiroyuki Kuge*

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ATTEST:

DocuSigned by:

*Tonya R. Grier*

Tonya R. Grier  
Clerk to the Board of  
Commission

DocuSigned by:

(Affix County Seal)



APPROVED AS TO FORM:

DocuSigned by:

*Dennal Stewart*

Dennal Stewart  
Office of the County Attorney

APPROVED AS TO CONTENT:

DocuSigned by:

*David Clark*

David Clark,  
Director of Public Works

ATTEST:

DocuSigned by:

Hiroyuki Kuge

Secretary/  
Assistant Secretary

(Affix Corporate Seal)

*Tamami Konishi*

Tamami Konishi  
Notary Public

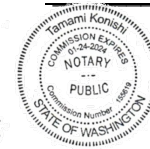


DocuSigned by:

County: King County

Commission Expires: 1/24/2024

(Affix Notary Seal)



小西珠美

ITEM#: \_\_\_\_\_ RCS: \_\_\_\_\_  
RECESS MEETING

ITEM#: 2020-0709 RM: 10/7/2020  
REGULAR MEETING



# **EXHIBIT A**

## **General Conditions**

**EXHIBIT A**  
**GENERAL CONDITIONS**

### **00700-1 FAMILIARITY WITH SITE**

Execution of this agreement by the Contractor is a representation that the Contractor has visited the site, has become familiar with the local conditions under which the work is to be performed, and has correlated personal observations with the requirements of this agreement.

### **00700-2 CONTRACT DOCUMENTS**

This agreement consists of the Contract Documents as defined in 0700-3.

The PDB with County concurrence shall furnish the Contractor the conformed copies of Contract Documents for execution by the Contractor and the Contractor's surety.

Within ten (10) days after receipt, the Contractor shall return all the documents properly executed by the Contractor and bonds issued by the Contractor's surety. Attached to each document shall be an original power-of-attorney for the person executing the bonds for the surety and certificates of insurance for the required insurance coverage.

After receipt of the documents executed by the Contractor and its surety with the power-of-attorney and certificates of insurance, the County shall complete the execution of the documents. Distribution of the completed documents will be made upon completion.

Should the Contractor and/or Surety fail to execute the documents within the time specified, the County shall have the right to proceed on the Bid Bond accompanying the bid.

If the Owner fails to execute the documents within the time limit specified, the Contractor shall have the right to withdraw the Contractor's bid without penalty.

All Documents comprising the Contract Documents as defined in 00700-3 are considered essential parts of the Contract, and requirements occurring in one are as binding as though occurring in all. They are intended to define, describe and provide for all Work necessary to complete the Project in an acceptable manner, ready for use, occupancy, or operation by the County.

Any conflicts or ambiguities or need for clarification of the Contract Documents shall be immediately reported to the PDB and the County in writing. Generally, in case of conflict between the Drawings and Specifications, the Specifications, with modifications and clarifications in Exhibit F, shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings.

In cases where products or quantities are omitted from the Specifications, the description and quantities shown on the Drawings shall govern.

Any such ambiguity or need for clarification shall be handled by the PDB in writing. No clarification of the Drawings and Specifications hereunder by the PDB with County concurrence shall entitle the Contractor to any additional monies unless a Change Order has been processed as provided by "Changes in the Contract" hereof.

Any work done by the Contractor following a discovery of such differing site condition or actual knowledge of an ambiguity or need for clarification in the Contract Drawings and Specifications prior to a written report to the PDB and the County shall not entitle the Contractor to additional monies and shall be done at the Contractor's risk.

The PDB will furnish the Contractor one copy of the Contract Drawings and the Specifications as clarified in Exhibit B – Special Conditions.

### **00700-3 DEFINITIONS**

The following terms as used in this agreement are defined as follows to the extent the definitions herein differ or conflict with those in the Instructions for Bidders, Section 00100, the definitions herein shall control.

Alternate bids – the amount stated in the bid or proposal to be added to or deducted from the amount of the base bid or base proposal if the corresponding change in project scope or alternate materials or methods of construction is accepted.

Base bid – the amount of money stated in the bid or proposal as the sum for which the bidder or proposer offers to perform the work.

Change Order - an alteration, addition, or deduction from the original scope of work as defined by the contract documents to address changes, or unforeseen conditions necessary for project completion. A written order to the Contractor issued by the County pursuant to Fulton County Code Section 102-420 for changes in the work within the general scope of the contract documents, adjustment of the contract price, extension of the contract time, or reservation of determination of a time extension.

Contractor - shall mean the Kubota Membrane USA or the authorized and legal representative of such party.

Contract Documents- shall mean the Owner – Contractor Agreement, Exhibit A – General Conditions, Exhibit B – Special Conditions, Exhibit D – Cost Proposal, Exhibit E – Bonds, Exhibit F – Scope of Work and Technical Specifications, Exhibit G – Project Schedule, Exhibit H – Purchasing Forms, Exhibit I – Office of Contract Compliance Forms, Exhibit J – Risk Management Insurance Provisions, Specifications, Plans, Drawings, acknowledgements and addenda, together with written amendments, change orders, field orders and the PDB's written interpretations and clarifications issued in accordance with the General Conditions on or after the date of the Contract Agreement. For purpose of this contract, the words "Contract", "Agreement" and "Contract Documents" shall mean the same, where appropriate.

Shop drawing submittals reviewed in accordance with the General Conditions, geotechnical investigations and soils report and drawings of physical conditions in or relating to existing surface structures at or contiguous to the site are not Contract Documents.

Contract Price - The sum specified in the Agreement to be paid to the Contractor in consideration of the Work.

Contract Time - shall mean the number of consecutive calendar days as provided in the Contract Agreement for completion of the Work, to be computed from the date of Notice to Proceed.

Owner or County - shall mean Fulton County Government, party of the first part to the Contract Agreement, or its authorized and legal representatives.

Day - A calendar day of twenty-four hours lasting from midnight of one day to midnight the next day.

Director - Director of the Public Works Department of Fulton County, Georgia or the designee thereof.

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Final Completion - shall mean the completion of all work as required in accordance with the terms and conditions of the contract documents.

Progressive Design–Builder or PDB – Shall mean Archer Western–Brown and Caldwell, Joint Venture, or the authorized and legal representative of such party.

Liquidated Damages - shall mean the amount, stated in the Contract Agreement, which the Contractor agrees to pay to the Owner for each consecutive calendar day beyond the Contract time required to complete the Project or for failing to comply with associated milestones. Liquidated Damages will end upon Contractor achieving Substantial Completion or upon written notification of from the Owner of completion of the milestone.

Notice to Proceed - A written communication issued by the County to the Contractor authorizing it to proceed with the work, establishing the date of commencement and completion of the work, and providing other direction to the Contractor.

Plans and Specifications – means specific elements of the Contract Documents. They include Drawings, Specifications, Revit models, and other documents and information describing the Work. They may be referred to together or individually. May also mean drawings or plans.

Products - shall mean materials or equipment supplied and permanently incorporated into the work.

Project Manual - The Contract Documents.

Provide - shall mean to furnish.

Substantial Completion - The date certified by the PDB with County concurrence when all or a part of the work, as established pursuant to General Condition 0700-81, is sufficiently completed in accordance with the requirements of the contract documents so that the identified portion of the work can be utilized for the purposes for which it is intended.

Work or Project - All of the services specified, indicated, shown or contemplated by the contract documents, and furnishing by the Contractor of all materials, equipment, labor, methods, processes, construction and manufacturing materials and equipment, tools, plans, supplies, power, water, transportation and other things necessary to complete such services in accordance with the contract documents to insure a functional and complete facility.

#### **00700-4 CODES**

All codes, specifications, and standards referenced in the contract documents shall be the latest editions, amendments and revisions of such referenced standards in effect as of the date of the request for proposals for this contract.

#### **00700-5 REVIEW OF CONTRACT DOCUMENTS**

Before making its proposal to the County, and continuously after the execution of the agreement, the Contractor shall carefully study and compare the contract documents and shall at once report to the PDB and the County any error, ambiguity, inconsistency or omission that may be discovered, including any requirement which may be contrary to any law, ordinance, rule, or regulation of any public authority bearing on the performance of the work. By submitting its proposal, the Contractor agrees that the contract documents, along with any supplementary written instructions issued by or through the County or by PDB with County concurrence, that have become a part of the contract

documents, appear accurate, consistent and complete insofar as can be reasonably determined. If the Contractor has timely reported in writing any error, inconsistency, or omission to the PDB and the County, has properly stopped the affected work until instructed to proceed, and has otherwise followed the instructions of the PDB, with County concurrence, the Contractor shall not be liable to the County for any damage resulting from any such error, inconsistency, or omission in the contract documents. Notwithstanding the foregoing, the Contractor shall be entitled to rely on, and the Owner expressly warrants, any design and any other documents and information provided by the Owner to the Contractor except for design and other documents of information provided by Contractor as part of this Agreement and Phase 1B Design Assist Services Agreement between the County and Contractor for accuracy of which the Contractor is responsible. The Contractor shall not perform any portion of the work without the contract documents, approved plans, specifications, products and data, or samples for such portion of the work. For purposes of this section "timely" is defined as the time period in which the contractor actually discovers (in its capacity as a contractor and not a professional designer), except for the portion of the project that Contractor provided professional design and/or engineering services for under this Agreement or other Agreements between the County and Contractor, the error, inconsistency, or omission, with the exercise of reasonable diligence.

#### **00700-6 STRICT COMPLIANCE**

No observation, inspection, test or approval of the PDB, with County concurrence, shall relieve the Contractor from its obligation to perform the work in conformity with the contract documents except as provided in General Condition 00700-48.

#### **00700-7 APPLICABLE LAW**

All applicable State laws, County ordinances, codes, and rules and regulations of all authorities having jurisdiction over the construction or Work of the project shall apply to this agreement. The Contractor shall comply with the requirements of any Fulton County program concerning non-discrimination in contracting. All work performed within the right of way of the Georgia Department of Transportation and any railroad crossing shall be in accordance with Georgia Department of Transportation regulations, policies and procedures and, where applicable, those of any affected railroad. The Contractor shall comply with all laws, ordinances, codes, rules and regulations bearing on the conduct of the work as specified and the Contractor agrees to indemnify and hold harmless the County, its officers, agents and employees, as well as the PDB against any claim or liability arising from or based on the violation of any law, ordinance, regulation, order or decree affecting the conduct of the work, whether occasioned by the Contractor, his agents or employees.

#### **00700-8 PERMITS, LICENSES AND BONDS**

All permits and licenses necessary for the work shall be secured and paid for by the Contractor. If any permit, license or certificate expires or is revoked, terminated, or suspended as a result of any action on the part of the Contractor, the Contractor shall not be entitled to additional compensation or time. The Contractor shall furnish Fulton County performance and payment bonds payable to Fulton County as Obligee for 100% of the Contract price guaranteeing completion of the project in accordance with O.C.G.A. 36-91-1 et seq. and O.C.G.A. Section 13-10-1. The Surety's post completion obligation is limited to one (1) year after Final Completion of the Project or the expiration of the Bond, whichever comes first. The Surety is not responsible for long term contractual guarantees and warranties under the Contract.

#### **00700-9 TAXES**

- A. The Contractor shall pay all sales, retail, occupational, service, excise, old age benefit and unemployment compensation taxes, consumer, use and other similar taxes, as well as any other taxes or duties on the materials, equipment, and labor for the work provided by the Contractor which are legally enacted by any municipal, county, state or federal authority, department or agency at the time project price is received, whether or not yet effective. The Contractor shall maintain records pertaining to such taxes and levies as well as payment thereof and shall make the same available to the County at all reasonable times for inspection and copying. The Contractor shall apply for any and all tax exemptions which may be applicable and shall timely request from the County such documents and information as may be necessary to obtain such tax exemptions. The County shall have no liability to the Contractor for payment of any tax from which it is exempt.

Acceptance of the project as complete and final payment will not be made by the Owner until the Contractor has fully complied with this requirement.

The County will provide a copy of the sales tax exemption certificate to the Contractor.

#### **00700-10 DELINQUENT CONTRACTORS**

The County shall not pay any claim, debt, demand or account whatsoever to any person firm or corporation who is in arrears to the County for taxes. The County shall be entitled to a counterclaim, back charge, and offset for any such debt in the amount of taxes in arrears, and no assignment or transfer of such debt after the taxes become due shall affect the right of the County to offset any taxes owed against said debt.

#### **00700-11 LIEN WAIVERS**

The Contractor shall furnish the County with evidence that all persons who have performed work or furnished materials pursuant to this agreement have been paid in full prior to submitting its demand for final payment pursuant to this agreement. A final affidavit must be completed, and submitted to comply with requirements of 00700-11. In the event that such evidence is not furnished, the County may retain sufficient sums necessary to meet all lawful claims of such laborers and materialmen. The County assumes no obligation nor in any way undertakes to pay such lawful claims from any funds due or that may become due to the Contractor.

#### **00700-12 MEASUREMENT**

All items of work to be paid for per unit of measurement shall be subject to inspection, measurement, and confirmation by the PDB with County concurrence.

#### **00700-13 ASSIGNMENT**

The Contractor shall not assign any portion of this agreement or moneys due there from (include factoring of receivables) without the prior written consent of the County. The Contractor shall retain personal control and shall provide personal attention to the fulfillment of its obligations pursuant to this agreement. Any assignment without the express written consent of the County shall render this contract voidable at the sole option of the County.

**00700-14 FOREIGN CONTRACTORS**

In the event that the Contractor is a foreign corporation, partnership, or sole proprietorship, the Contractor hereby irrevocably appoints the Secretary of State of Georgia as its agent for service of all legal process for the purpose of this contract only.

**00700-15 INDEMNIFICATION**

The Contractor hereby assumes the entire responsibility and liability for any and all injury to or death of any and all persons, including the Contractor's agents, servants, and employees, and in addition thereto, for any and all damages to property caused by or resulting from or arising out of any act or omission in connection with this contract or the prosecution of work hereunder, whether caused by the Contractor or the Contractor's agents, Servants, or employees, or by any of the Contractor's subcontractors or suppliers, and the Contractor shall indemnify and hold harmless the County, the PDB, County's Commissioners, officers, employees, successors, assigns and agents, or any of their subcontractors from and against any and all loss and/or expense which they or any of them may suffer or pay as a result of claims or suits due to, because of, or arising out of any and all such injuries, deaths and/or damage, irrespective of County or PDB negligence (except that no party shall be indemnified for their own negligence). The Contractor, if requested, shall assume and defend at the Contractor's own expense, any suit, action or other legal proceedings arising there from, and the Contractor hereby agrees to satisfy, pay, and cause to be discharged of record any judgment which may be rendered against the County and the PDB arising there from.

In the event of any such loss, expense, damage, or injury, or if any claim or demand for damages as heretofore set forth is made against the County or the PDB, the County may withhold from any payment due or thereafter to become due to the Contractor under the terms of this Contract, an amount sufficient in its judgment to protect and indemnify it and the PDB, County's Commissioners, officers, employees, successors, assigns and agents from any and all claims, expense, loss, damages, or injury; and the County, in its discretion, may require the Contractor to furnish a surety bond satisfactory to the County providing for such protection and indemnity, which bond shall be furnished by the Contractor within five (5) days after written demand has been made therefore. The expense of said Bond shall be borne by the Contractor.

**00700-16 SUPERVISION OF WORK AND COORDINATION WITH OTHERS**

The Contractor shall furnish, supervise, direct and perform the Work in a manner that satisfies the professional standard of care, quality, skill and ability required under similar conditions and like surrounding circumstances, as is ordinarily employed and/or furnished by others in the same profession.

The County reserves the right to perform work related to the Project with the County's own forces and to award separate contracts in connection with other portions of the project, other work on the site under these or similar conditions of the contract, or work which has been extracted from the Contractor's work by the County.

When separate contracts are awarded for different portions of the project or other work on the site, the term "separate contractor" in the Contract Documents in each case shall mean the contractor who executes each separate County Agreement.

The Contractor shall cooperate with the PDB, the County and separate contractors in arranging the introduction and storage of materials and equipment and execution of their



work, and shall cooperate in coordinating connection of its work with theirs as required by the Contract Documents.

If any part of the Contractor's Work depends for proper execution or results upon the work of the PDB, the County or any separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the PDB and the County any apparent discrepancies or defects in such other work that render it unsuitable for such proper execution and results **within fourteen (14) days** of discovery of such discrepancy or defect. Failure of the Contractor to so report in writing shall constitute an acceptance of the PDB, the County's or any separate contractor's work as fit and proper to receive the Work, except as to any defects which may subsequently become apparent in such work by others.

Any costs caused by defective or untimely work shall be borne by the party responsible therefore.

Should the Contractor wrongfully cause damage to the work or property of the PDB or the County or to other work or property on the site, including the work of separate contractors, the Contractor shall promptly remedy such damage at the Contractor's expense.

Where the Work of this Contract shall be performed concurrently in the same areas as other construction work, the Contractor shall coordinate with the PDB and the separate contractors in establishing mutually acceptable schedules and procedures that shall permit all jobs to proceed with minimum interference.

If a dispute arises between the Contractor and the PDB or separate contractors as to their responsibility for cleaning up, the County may clean up and charge the cost thereof to the Contractor, PDB or separate contractors responsible therefore as the County shall reasonably determine to be just.

#### **00700-17 ADMINISTRATION OF CONTRACT**

The PDB, in coordination with the County, shall provide administration services as hereinafter described and as included in the scope of services of the Phase 2B contract between the County and the PDB.

The PDB, in coordination with the County, will administer this Contract during design and construction and until final payment to the Contractor is due. The primary point of contact for the Contractor on Contract administration matters shall be the PDB. All design and scheduling correspondence from the Contractor to the County shall be forwarded through the PDB.

The PDB will determine in general that the work is being performed in accordance with design and engineering requirements, and will endeavor to guard the County against defects and deficiencies in the Work.

The County and the PDB will not be responsible for or have control or charge of Contractor's means, methods, techniques, sequences, or procedures, or for safety precautions and programs in connection with the Work, nor will it be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents. The County and the PDB will not be responsible for or have control or charge over the acts or omissions of the Contractor, its engineers, consultants, subcontractors, or any of their agents or employees, or any other persons performing the Work.

Based on the PDB's observations regarding the Contractor's Applications for Payment, the PDB shall reasonably determine the amounts owing to the Contractor, in accordance with the payment terms of the Contract, and shall advise the County.

The PDB, with County concurrence, shall have authority to reject Work, which does not conform to the Contract Documents. Whenever, in the PDB's opinion, it is considered necessary or advisable for the implementation of the intent of the Contract Documents, the County shall have authority to require special inspection or testing of the Work whether or not such Work be then fabricated, installed or completed. The Contractor shall pay for such special inspection or testing if the Work so inspected or tested is found not to comply with the requirements of the contract; the County shall pay for special inspection and testing if the Work is found to comply with the contract.

The Contractor shall provide such shop drawings, product data, and samples as may be required by the PDB and/or as required by these Contract Documents.

The PDB shall conduct inspections and advise the County on Substantial Completion and Final Completion, and shall receive and forward to the County for review written warranties and related documents required by the Contract Documents and assembled by the Contractor. The PDB shall advise the County on issuance of the Certificates for Payment upon compliance with Substantial and Final Completion requirements indicated in General Conditions 00700-81, 00700-82, 00700-84 and 00700-85 of this Agreement.

Except as provided in General Condition 00700-48, the Contractor shall not be relieved from the Contractor's obligations to perform the work in accordance with the contract documents by the activities or duties of the County or any of its officers, employees, or agents, including inspections, tests or approvals, required or performed pursuant to this agreement.

The PDB shall render design interpretations necessary for the proper execution or progress of the Work. Either party to the Contract may make written requests to the PDB for such interpretations.

Claims, disputes and other matters in question between the Contractor and the County relating to the progress of the Work or the interpretation of the Contract Documents as it relates to design and engineering requirement shall be referred to the PDB for interpretation.

All interpretations of the PDB shall be consistent with the intent of and reasonably inferable from the Contract Documents and shall be in writing or in graphic form.

Except as otherwise provided in this Contract, the PDB, with County concurrence, shall issue a decision on any disagreement concerning a question of fact arising under this Contract. The PDB, with County concurrence, shall reduce the decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the PDB, with County concurrence, shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copy, the Contractor files a written appeal with the Director of Public Works and mails or otherwise furnishes the County a copy of such appeal. The decision of the Director of Public Works, or the Director's duly authorized representative for the determination of such appeals shall be final and conclusive unless within thirty (30) days, the Contractor gives written notice to the Director of the Contractor's intent to appeal such determination through mediation, notwithstanding terms of this Agreement to the contrary. Such final decision shall not be pleaded in any suit involving a question of fact arising under this Contract, provided such is not fraudulent, capricious, arbitrary, so grossly erroneous as necessarily implying bad faith, or is not supported by substantial

evidence. In connection with any appeal proceeding under this Article, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of Contractor's appeal. Pending any final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract as directed by the PDB with County concurrence.

Where the Contractor timely submits a matter for mediation the following is applicable:

#### NON-BINDING MEDIATION.

Rights to Request. The Contractor may request Non-Binding Mediation of any dispute arising under this Agreement after a final decision has been rendered by the Director of Public Works or his/her designee, whether technical or otherwise. Only matters of a material nature are subject to mediation. The non-requesting party may decline the request where the matter requested to be mediated is not material. For purposes of this section "material" is defined as an item valued in excess of \$20,000, or would impact the schedule by more than 10 days.

Procedure. The mediator shall be a professional engineer, attorney or other professional mutually acceptable to the parties who has no current or on-going relationship to either party. The mediator shall have full discretion as to the conduct of the mediation. Each party shall participate in the mediator's program to resolve the dispute until and unless the parties reach agreement with respect to the disputed matter or one party determines in its sole discretion that its interests are not being served by the mediation.

Non-Binding Effect. Mediation is intended to assist the parties in resolving disputes over the correct interpretation of this Agreement. No Mediator shall be empowered to render a binding decision.

Relation to Judicial Legal Proceedings. Nothing in this Section shall operate to limit, interfere with or delay the right of either party under this Article to commence judicial Legal Proceedings upon a breach of this Agreement by the other party, whether in lieu of, concurrently with, or at the conclusion of any Non-Binding Mediation.

#### **00700-18 RESPONSIBILITY FOR ACTS OF EMPLOYEES**

The Contractor shall employ only competent and skilled personnel. The Contractor shall, upon demand from the County or PDB with County concurrence, immediately remove any superintendent, foreman or workman whom the PDB or the County may consider incompetent or undesirable.

The Contractor shall be responsible to the County for the acts and omissions of the Contractor's employees, subcontractors, and agents as well as any other persons performing work pursuant to this agreement for the Contractor.

#### **00700-19 LABOR, MATERIALS, SUPPLIES, AND EQUIPMENT**

Unless otherwise provided in this agreement, the Contractor shall make all arrangements with necessary support agencies and utility companies provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the execution and completion of the work.

**00700-20 DISCIPLINE ON WORK SITE**

The Contractor shall enforce strict discipline and good order among its employees and subcontractors at all times during the performance of the work, to include compliance with the Fulton County Drug Free Work Place Policy. The Contractor shall not employ any subcontractor who is not skilled in the task assigned to it. The County or PDB with County concurrence may, by written notice, require the Contractor to remove from the work any subcontractor or employee reasonably deemed by the County or PDB to be incompetent.

**00700-21 HOURS OF OPERATION**

All work at the construction site shall be performed during regular business hours of the Fulton County government, and City of Roswell except upon the County's prior written consent to other work hours. It is further understood that the Contractor's construction schedule is based on a normal 40 hours, five day work week, less Fulton County and City of Roswell-recognized holidays. Contractor's work schedule shall not violate Fulton County's or the City of Roswell's respective Noise Ordinance by working hours inconsistent with these entities respective Noise Ordinance. The current noise ordinances or other applicable ordinances shall govern. If the Contractor desires to work in excess of this limit, the Contractor shall submit a written request to the PDB a minimum of 24 hours prior to the desired work date.

**00700-22 FAMILIARITY WITH WORK CONDITIONS**

The Contractor shall take all steps necessary to ascertain the nature and location of the work and the general and local conditions which may affect the work or the cost thereof. The Contractor's failure to fully acquaint itself with the conditions which may affect the work, including, but not limited to conditions relating to transportation, handling, storage of materials, availability of utilities, labor, water, roads, weather applicable provisions of law, and the character and availability of equipment and facilities necessary prior to and during the performance of the work shall not relieve the Contractor of its responsibilities pursuant to this agreement and shall not constitute a basis for an equitable adjustment of the contract terms. The County reserves the right to perform with its own forces or to contract with other entities for other portions of the project work, in which case the Contractor's responsibility to assure its familiarity with work conditions hereunder shall include all coordination with such other contractors and the County necessary to insure that there is no interference between contractors that will delay or hinder any contractor in its prosecution of work on the project. Unless expressly agreed to in writing by the parties, the County assumes no responsibility for any understandings or representations concerning conditions of the work made by any of its officers, agents, or employees prior to the execution of this agreement, unless any such understanding or representation stems from a prior phase of this Project as memorialized in a written document relating to such phase, and the County officer, agent or employee is authorized to make such understanding or representation.

**00700-23 RIGHT OF ENTRY**

The County reserves the right to enter the site of the work by such agent, including the PDB, as it may elect for the purpose of inspecting the work or installing such collateral work as the County may desire. The Contractor shall provide safe facilities for such access so that the County and its agents may perform their functions.

## **00700-24 NOTICES**

Any notice, order, instruction, claim or other written communication required pursuant to this agreement shall be deemed to have been delivered or received as follows:

Upon personal delivery to the Contractor, its authorized representative, or the County. Personal delivery may be accomplished by in-person hand delivery or bona fide overnight express service.

Three days after depositing in the United States mail a certified letter addressed to the Contractor or the County. For purposes of mailed notices, the County's mailing address shall be 141 Pryor Street, 6th Floor, Atlanta, Georgia 30303, or as the County shall have otherwise notified the Contractor. The Contractor's mailing address shall be the address stated in its proposal or as it shall have most recently notified the PDB and the County in writing.

## **00700-25 SAFETY**

### **A. SAFETY, HEALTH AND LOSS PREVENTION**

The Contractor shall be responsible for implementing a comprehensive project-specific safety, health and loss prevention program and employee substance abuse program for this project. All Sub-Contractors must either implement their own program or follow the Contractor's safety, health and loss prevention program and employee substance abuse program.

The Contractor's safety, health and loss prevention program and employee substance abuse program must meet or exceed all governmental regulations (OSHA, EPA, DOT, State, local), and any other specific Fulton County requirements

### **B. COUNTY'S SAFETY, HEALTH, AND LOSS PREVENTION PROCESS GUIDELINES AND REQUIREMENTS**

The County and its agents reserve the right, but assume no duty, to establish and enforce safety, health, and loss prevention guidelines and to make the appropriate changes in the guidelines, for the protection of persons and property and to review the efficiency of all protective measures taken by the Contractor. The Contractor shall comply with all safety, health, and loss prevention process guidelines and requirements and changes made by the County or its agent(s). The issuance of any such guidelines or changes by the County or its agent(s) shall not relieve the Contractor of its duties and responsibilities under this Agreement, and the County or its agent(s) shall not thereby assume, nor be deemed to have assumed, any such duties or responsibilities of the Contractor.

### **C. COMPLIANCE OF WORK, EQUIPMENT, AND PROCEDURES WITH ALL APPLICABLE LAWS and REGULATIONS**

All Work, whether performed by the Contractor or its Sub-Contractors of any tier, or anyone directly or indirectly employed by any of them, and all equipment, appliances, machinery, materials, tools and like items incorporated or used in the Work, shall be in compliance with and conform to:

1. All applicable laws, ordinances, rules, regulations and orders of any public, quasi-public or other governmental authority relating to the safety of persons and their protection against injury, specifically including, but in no event limited to, the Federal Occupational Safety and Health Act of

1970, as amended, and all rules and regulations now or hereafter in effect pursuant to said Act.

2. All rules, regulations, and requirements of the County or its agent(s) and its insurance carriers provided to the Contractor after commencement of the Work, where Contractor could not have been reasonably expected to be aware of their existence. In the event of a conflict or differing requirements, the Contractor shall request clarification from the PDB, and in the absence of such request, the more stringent shall govern.

#### D. PROTECTION OF THE WORK

1. The Contractor shall, throughout the performance of the Work, maintain adequate and continuous protection of all Work and temporary facilities against loss or damage from whatever cause, shall protect the property of the County and third parties from loss or damage from whatever cause arising out of the performance of the Work, and shall comply with the requirements of the County or its agent(s) and its insurance carriers, and with all applicable laws, codes, rules and regulations, (as same may be amended) with respect to the prevention of loss or damage to property as a result of fire or other hazards.
2. The County or its agent(s) may, but shall not be required to, make periodic inspections of the Project work area. In such event, however, the Contractor shall not be relieved of its aforesaid responsibilities and the County or its agent(s) shall not assume, nor shall it be deemed to have assumed, any responsibility otherwise imposed upon the assurance of Contractor by this Agreement.

#### E. SAFETY EQUIPMENT

1. The Contractor shall provide to each worker on the Project work area the proper safety equipment for the duties being performed by that worker and will not permit any worker on the Project work area who fails or refuses to use the same. The County or its agent shall have the right, but not the obligation, to order the removal of a worker from the Project work site for his/her failure to comply with safe practices or substance abuse policies.

#### F. EMERGENCIES

1. In any emergency affecting the safety of persons or property, or in the event of a claimed violation of any federal or state safety or health law or regulation, arising out of the Work or its performance, the Contractor shall act immediately to prevent threatened damage, injury or loss and to remedy said violation. Failing such action the County or its agent(s) may immediately take whatever steps it deems necessary including, but not limited to, suspending the Work as provided in this Agreement.
2. The County or its agent(s) may, for good cause shown including substantiation of costs, offset any and all costs or expenses of whatever nature, including attorneys' fees, paid or incurred by the County or its agent(s), in taking the steps authorized by Section 00700-25(F) (1) above

against any sums then or thereafter due to the Contractor. The Contractor shall defend, indemnify and hold the County, its officers, agents, employees and PDB, as agent for the County in administration of the Contract, harmless against any and all costs or expenses caused by or arising from the exercise by the County of its authority to act in an emergency as set out herein. If the Contractor shall be entitled to any additional compensation or extension of time change order on account of emergency work not due to the fault or neglect of the Contractor or its Sub-Contractors, such additional compensation or extension of time shall be determined in accordance with General Condition 00700-52 and General Condition 00700-87 of this Agreement.

**G. SUSPENSION OF THE WORK**

1. Should, in the reasonable judgment of the County or its agent(s), the Contractor or any Sub-Contractor fail to provide a safe and healthy work place, the County or its agent shall have the right, but not the obligation, to suspend work in the unsafe areas until deficiencies are corrected. All costs of any nature (including, without limitation, overtime pay, liquidated damages or other costs arising out of delays) resulting from the suspension, by whomsoever incurred, shall be borne by the Contractor.
2. Should the Contractor or any Sub-Contractor fail to provide a safe and healthy work place after being formally notified in writing by the County or its agents of such non-compliance, the contract may be terminated following the termination provision of the contract.

**H. CONTRACTOR'S INDEMNITY OF THE COUNTY FOR CONTRACTOR'S NON-COMPLIANCE WITH SAFETY PROGRAM**

1. The Contractor recognizes that it has sole responsibility to assure its Safety Program is implemented and to assure its construction services are safely provided. The Contractor shall indemnify, defend and hold the County, its agents and PDB, as agent for the County in administration of the Contract, harmless, from and against any and all liability (whether public or private), penalties (contractual or otherwise), losses, damages, costs, attorneys' fees, expenses, causes of action, claims or judgments resulting, either in whole or in part, from any failure of the Contractor, its Sub-Contractors of any tier or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, to comply with the safety requirements of the contract. The Contractor shall not be relieved of its responsibilities under the safety requirements of the Contract should the County, its agent(s) or PDB, as agent for the County in administration of the Contract, act or fail to act pursuant to its rights hereunder.
2. The Contractor shall not raise as a defense to its obligation to indemnify under this Subparagraph H any failure of those indemnified hereunder to assure Contractor operates safely, it being understood and agreed that no such failure shall relieve the Contractor from its obligation to assure safe operations or from its obligation to so indemnify.

3. In any and all claims against those indemnified hereunder by any employee of the Contractor, any Sub-Contractor of any tier or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under this Subparagraph H shall not be limited in any way as to the amount or type of damages, compensation or benefits payable by or for the Contractor or any Sub-Contractor of any tier under any workers' compensation act, disability benefit or other employee benefit acts.

#### **00700-26 BLASTING AND EXCAVATION**

The Contractor acknowledges that it is fully aware of the contents and requirements of O.C.G.A. § 25-9-1 through 25-9-12 concerning blasting and excavation near underground gas pipes and facilities and shall fully comply therewith.

#### **00700-27 HIGH VOLTAGE LINES**

The Contractor acknowledges that it is fully aware of the contents and requirements O.C.G.A. § 46-3-30 through 46-3-39 concerning safeguards against contact with high voltage lines, and the Contractor shall fully comply with said provisions.

#### **00700-28 SCAFFOLDING AND STAGING**

The Contractor acknowledges that it is the person responsible for employing and directing others to perform labor within the meaning of O.C.G.A. § 34-1-1 and agrees to comply with said provisions.

#### **00700-29 CLEAN-UP**

The Contractor shall clean up all refuse, rubbish, scrap materials, and debris caused by its operations to the end that the site of the work shall present a neat, orderly and workmanlike appearance at all times.

#### **00700-30 PROTECTION OF WORK**

The Contractor shall be responsible for maintenance and protection of the work, which shall include any County-furnished supplies, material, equipment, until it is delivered and the risk of loss and damage passes to the County. Any portion of the work suffering injury, damage or loss while the risk of loss remains with the Contractor shall be considered defective and shall be corrected or replaced by the Contractor without additional cost to the County

#### **00700-31 REJECTED WORK**

The Contractor shall promptly remove from the project all work rejected by the County or PDB with County concurrence for failure to comply with the contract documents and the Contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the County. Unless the cause for the rejected work is an event, entity or person not within the Contractor's control, the Contractor shall also bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

#### **00700-32 DEFECTIVE WORK**

If the Contractor defaults or neglects to carry out any portion of the work in accordance with the contract documents, and fails within seven days after receipt of written notice from the PDB, with County concurrence, to commence and continue correction of such default or neglect with diligence and promptness, the County may, after three days



following receipt by the Contractor of an additional written notice and without prejudice to any other remedy the County may have, make good such deficiencies and complete all or any portion of any work through such means as the County may select, including the use of a separate Contractor. In such case, an appropriate change order shall be issued deducting from the payments then or thereafter due the Contractor the cost of correcting such deficiencies. In the event the payments then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor shall pay the difference to the County on demand.

The County may, at its option, accept defective or nonconforming work instead of requiring its removal or correction. In such case, a change order shall be issued reducing the price due the contractor to the extent appropriate and equitable. Such contract price adjustment shall be effected whether or not final payment has been made.

#### **00700-33 WARRANTY OF NEW MATERIALS**

The Contractor warrants to the County that all materials and equipment furnished under this contract will be new unless otherwise specified, and the Contractor further warrants that all Work and construction portions of the Work will be of good quality, free from faults and defects, and in conformance with the contract documents. The warranty set forth in this paragraph shall survive final acceptance of the work.

#### **00700-34 CONTRACTOR'S WARRANTY OF THE WORK**

If within one year after the date of issuance of the certificate of Substantial Completion for all or a portion of the Contractor's work pursuant to General Condition 81, or within such longer period of time as may be prescribed by law or by the term of any applicable special warranty required by the contract documents, any of the work is found to be defective or not in accordance with the contract documents, the Contractor shall correct such work promptly after receipt of written notice from the PDB, with County concurrence, to do so. This obligation shall survive both final payment for the work and termination of the contract.

#### **00700-35 ASSIGNMENT OF MANUFACTURERS' WARRANTIES**

Without limiting the responsibility or liability of the Contractor pursuant to this agreement, all warranties given by manufacturers on materials or equipment incorporated in the work are hereby assigned by the Contractor to the County. If requested, the Contractor shall execute formal assignments of said manufacturer's warranties to the County. All such warranties shall be directly enforceable by the County.

#### **00700-36 WARRANTIES IMPLIED BY LAW**

The warranties contained in this agreement, as well as those warranties implied by law, shall be deemed cumulative and shall not be deemed alternative or exclusive. No one or more of the warranties contained herein shall be deemed to alter or limit any other.

#### **00700-37 STOP WORK ORDERS**

In the event that the Contractor fails to correct defective work as required by the contract documents or fails to carry out the work in accordance with contract documents, the PDB, with County concurrence, in writing, may order the Contractor to stop work until the cause for such order has been eliminated. This right of the County to stop work shall not give rise to any duty on the part of the County to execute this right for the benefit of the Contractor or for any other person or entity.

**00700-38 TERMINATION FOR CAUSE**

If the Contractor is adjudged bankrupt, makes a general assignment for the benefit of creditors, suffers the appointment of a receiver on account of its insolvency, fails to supply sufficient properly skilled workers or materials, fails to make prompt payment to subcontractors or materialmen, disregards laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction, fails to diligently prosecute the work, or is otherwise guilty of a material violation of this agreement and fails within seven days after receipt of written notice to commence and continue correction of such default, neglect, or violation with diligence and promptness, the County may, after seven days following receipt by the Contractor of an additional written notice and without prejudice to any other remedy the County may have, terminate the employment of the Contractor and take possession of the site as well as all materials, equipment, tools, construction equipment and machinery thereon. The County may finish the work by whatever methods the County reasonably deems expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is completed.

Upon completion of the work, the County shall determine in its sole discretion whether the Contractor is due any compensation for those services the Contractor performed prior to the termination to the satisfaction of the County ("Unpaid Satisfactory Work") and shall compensate Contractor for the same, provided that Contractor may appeal such determination in accordance with Section 00700-17. The County shall further determine in its sole discretion whether the County's completion of the work was made more costly as a result of failures, acts, or omissions of the Contractor, and if so, shall deduct such amounts ("Overages") from any amounts that may be due to the Contractor, provided that Contractor may appeal such determination in accordance with Section 00700-17. In the event that the Overages exceed the Unpaid Satisfactory Work, the Contractor shall immediately pay the difference to the County on demand. These obligations for payment shall survive the termination of the contract. Termination of this agreement pursuant to this paragraph may result in disqualification of the Contractor from bidding on future County contracts, unless the termination is determined by a court of competent jurisdiction to have been unjustified.

**00700-39 TERMINATION FOR CONVENIENCE**

The County may, at any time upon written notice to the Contractor, terminate the whole or any portion of the work for the convenience of the County. The effective date of the termination shall be provided in the written notice. Said termination shall be without prejudice to any right or remedy of the County provided herein. In addition, in the event this Contract has been terminated by the County through the Termination for Cause provisions due to a claim of default by the Contractor, and it is later determined that the Contractor was not in default pursuant to the provisions of this agreement at the time of termination, then such termination shall be considered a Termination for Convenience pursuant to this paragraph and administered according to the provisions related to Termination for Convenience set out in this Contract.

**00700-40 TERMINATION FOR CONVENIENCE - PAYMENT**

If the Contract is terminated for convenience by the Owner as provided in this article, Contractor will be paid compensation for those services actually performed and equipment ordered that cannot be returned through the date of the termination as approved by the Owner or his representative. Partially completed tasks will be compensated for based on a signed statement of completion prepared by the PDB, with County concurrence, and submitted to the Contractor which shall itemize each task

element and briefly state what work has been completed and what work remains to be done. Contractor shall also be paid for reasonable costs for the orderly filing and closing of the project and all other costs incurred as a result of the termination (including without limitation any fees Contractor owes to any subcontractors as a result of the termination).

#### **00700-41 TERMINATION FOR CONVENIENCE - PAYMENT LIMITATIONS**

Except for normal spoilage, and except to the extent that the County shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor the fair value, as determined by the PDB, with County concurrence, of property, to the extent Contractor is responsible for the security of such property, which is destroyed, lost, stolen or damaged so as to become undeliverable to the County or to another buyer.

#### **00700-42 COST TO CURE**

If the County terminates for cause the whole or any part of the work pursuant to this agreement, then the County may procure upon such terms and in such manner as the PDB, with County concurrence, may deem reasonably appropriate, supplies or services similar to those so terminated, for the purpose of completing the work for which the Contractor was contractually engaged, and the Contractor shall be liable to the County for any excess costs for such similar supplies or services. The Contractor shall continue the performance of this agreement to the extent not terminated hereunder.

#### **00700-43 ATTORNEY'S FEES**

Should the Contractor default pursuant to any of the provisions of this agreement, the Contractor and its surety shall pay to the County such reasonable attorney's fees as the County may expend as a result thereof and all costs, expenses, and filing fees incidental thereto.

#### **00700-44 CONTRACTOR'S RESPONSIBILITIES UPON TERMINATION**

After receipt of a notice of termination from the County, and except as otherwise directed by the County, the Contractor shall:

1. Stop work under the contract on the date and to the extent specified in the notice of termination;
2. Place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the agreement as is not terminated;
3. Unless otherwise directed by the County, terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the notice of termination;
4. Assign to the County in the manner, at the times, and to the extent directed by the County, all of the rights, title and interest of the Contractor under the orders and subcontracts so terminated, in which case the County shall have the right, at its discretion, to settle or pay any and all claims arising out of the termination of such orders or subcontracts;
5. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts with the approval or ratification of the PDB, with County approval, to the extent the PDB, with County approval, may require, which approval or ratification shall be final for all purposes;

6. Transfer title and deliver to the entity or entities designated by the PDB, with County approval, in the manner, at the times, and to the extent, if any, directed by the PDB, with County approval, and to the extent specifically produced or specifically acquired by the Contractor for the performance of such portion of the work as has been terminated:
  - a. The fabricated or un-fabricated parts, work, and progress, partially completed supplies, and equipment, materials, parts, tools, dyes, jigs, and other fixtures, completed work, supplies, and other material produced as a part of or acquired in connection with the performance of the work terminated by the notice of termination; and
  - b. The completed or partially completed plans, drawings, information, and other property to the work.
7. Use its best efforts to sell in the manner, at the times, to the extent, and at the prices directed or authorized by the PDB, with County approval, any property described in Section 6 of this paragraph, provided, however, that the Contractor shall not be required to extend credit to any buyer and further provided that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the County to the Contractor pursuant to this agreement.
8. Complete performance of such part of the work as shall not have been terminated by the notice of termination; and
9. Take such action as may be necessary, or as the PDB, with County approval may direct, for the protection and preservation of the property related to the agreement which is in the possession of the Contractor and in which the County has or may acquire an interest.

#### **00700-45 RECORDS**

The Contractor shall preserve and make available to the County all of its records, books, documents and other evidence bearing on the costs and expenses of the Contractor and any subcontractor pursuant to this agreement upon three days advance notice to the Contractor. Confidential information disclosed by the Contractor in connection to this article, shall be provided to the County under a Non-Disclosure Agreement (NDA) that is incorporated herein by reference and as finalized by the parties respective legal teams.

#### **00700-46 DEDUCTIONS**

In arriving at any amount due the Contractor pursuant to the terms of this agreement, there shall be deducted all liquidated damages, advance payments made to the Contractor applicable to the termination portion of the contract, the amount of any claim which the County may have against the Contractor, the reasonable amount determined in good faith by the County to be necessary to protect the County against loss due to outstanding potential liens or claims, and the agreed price of any materials acquired or sold by the Contractor and not otherwise recovered by or credited to the County.

**00700-47 REIMBURSEMENT OF THE COUNTY**

In the event of termination for cause or convenience, the Contractor shall refund to the County any amount paid by the County to the Contractor in excess of the costs properly reimbursable to the Contractor.

**00700-48 SUSPENSION, INTERRUPTION, DELAY, DAMAGES**

The Contractor shall be entitled to only those damages and that relief from termination by the County as specifically set forth in this agreement. The PDB, with County concurrence, may issue a written order requiring the Contractor to suspend, delay or interrupt all or any part of the work for such period of time as the County may determine to be appropriate for the convenience of the County. If the performance of the work is interrupted or delayed by an act of the County or any of its officers, agents, employees, contractors, or consultants in the administration of this agreement, an equitable adjustment may be made for any increase in the Contractor's costs of performance and any increase in the time required for performance of the work necessarily caused by the suspension, delay, or interruption. Any equitable adjustment made by the County shall be reduced to writing and shall constitute a modification to this agreement, subject to necessary approvals as required by the Change Order provisions of this agreement. The Contractor may be entitled to an extension of the contract time, but not an increase in the contract price or damages, for delays arising from unforeseeable causes beyond the control and without the fault or negligence of the Contractor or its subcontractors for labor strikes, acts of God, acts of the public enemy, pandemics, acts of the state, federal or local government in its sovereign capacity, where the County is in agreement. In no event, however, shall an equitable adjustment be made to the extent that performance of this agreement would have been suspended, delayed or interrupted by any other cause, including the fault or negligence of the Contractor. No claim for an equitable adjustment pursuant to this paragraph shall be permitted before the Contractor shall have notified the PDB and the County in writing of the act or failure to act involved, and no claim shall be allowed unless asserted in writing to the PDB and the County within ten days after the termination of such suspension, delay or interruption. In the event the work is suspended, interrupted or delayed in accordance with this section 00700-48 for ninety (90) Days, the Contractor may suspend or terminate the Contract and shall recover from the County payment for work executed, including reasonable overhead.

**00700-49 COMMENCEMENT AND DURATION OF WORK**

The County may issue a Notice to Proceed at any time within 30 days following execution of the contract by the County. The Contractor shall commence work pursuant to this agreement within ten days of mailing or delivery of written notice to proceed. The Contractor shall diligently conduct the work to completion within the time specified therefore in the Agreement. The capacity of the Contractor's work, construction and manufacturing equipment and plan, sequence and method of operation and forces employed, including management and supervisory personnel, shall be such as to allow completion of the work within the time specified in the Agreement. The Contractor and County hereby agree that the contract time for completion of the work is reasonable taking into consideration the average climatic conditions prevailing in the locality of the

work and anticipated work schedules of other contractors whose activities are in conjunction with or may affect the work under this contract.

#### **00700-50 TIME OF THE ESSENCE**

All time limits stated in this agreement are of the essence of this contract.

#### **00700-51 IMPACT DAMAGES**

Except as specifically provided pursuant to Section 00700-48, a stop work order, or change order, the Contractor shall not be entitled to payment or compensation of any kind from the County for direct or indirect or impact damages including, but not limited to, costs of acceleration arising because of delay, disruption, interference or hindrance from any cause whatsoever whether such delay, disruption, interference or hindrance is reasonable or unreasonable, foreseeable or unforeseeable, or avoidable, provided, however, that this provision shall not preclude the recovery of damages by the Contractor for hindrances or delays due solely to fraud or bad faith on the part of the County, its agents, or employees. The Contractor shall be entitled only to extensions in the time required for performance of the work as specifically provided in the contract.

#### **00700-52 DELAY**

The Contractor may be entitled to an extension of the contract time, but not an increase in the contract price or damages, for delays arising from unforeseeable causes beyond the control and without the fault or negligence of the Contractor or its subcontractors for labor strikes, acts of God, acts of the public enemy, pandemics, acts of the state, federal or local government in its sovereign capacity.

#### **00700-53 INCLEMENT WEATHER**

The Contractor shall not be entitled to an extension of the contract time due to normal inclement weather. Contractor shall substantiate to the satisfaction of the PDB and the County that there was greater than normal inclement weather and that such greater than normal inclement weather actually delayed the work. Meteorological Data recorded at the U.S. National Oceanic and Atmosphere Administration (NOAA) Station 8-3 NE Marietta shall be used unless unavailable. If weather data at Station 8-3 NE Marietta is unavailable, the nearest NOAA operational weather station to the site shall be used to substantiate the actual inclement weather days for each month. The following shall be considered the normal inclement weather days for each month listed, and extensions of time shall be granted in increments of not less than one half day only for inclement weather in excess of the days set out for the individual month. Days shall not be credited or schedule time reduced for inclement weather days below the monthly averages listed below.

January	6 days
February	6 days
March	6 days
April	4 days
May	5 days
June	5 days
July	5 days
August	4 days
September	2 days

October	3 days
November	4 days
	6 days
December	I
Annual Total	56 days

Inclement weather day is defined as a weather event impacting the critical path of the project as documented in monthly schedule updates and a day:

- having precipitation equal to or greater than one tenth of one inch (0.10"), or
- with daily high temperature of thirty degrees Fahrenheit (30°F) or less, or with snowfall of one inch (1") or more.

#### **00700-54 DELAY - NOTICE AND CLAIM**

The Contractor shall not receive an extension of time unless a Notice of Delay is filed with the PDB and the County within ten days of the reasonable discovery of the first instance of such delay, disruption, interference or hindrance and a written Statement of the Claim is filed with the PDB and the County within 20 days of the first such instance. In the event that the Contractor fails to comply with this provision, it waives any claim which it may have for an extension of time pursuant to this agreement.

#### **00700-55 STATEMENT OF CLAIM - CONTENTS**

The Statement of Claim referenced in Article 00700-54 shall include specific information concerning the nature of the delay, the date of commencement of the delay, the construction activities affected by the delay, the person or organization responsible for the delay, the anticipated extent of the delay, and any recommended action to avoid or minimize the delay.

#### **00700-56 WORK BEHIND SCHEDULE, REMEDY BY CONTRACTOR**

If the work actually in place falls behind the currently updated and approved schedule, and it becomes apparent from the current schedule that work will not be completed within the contract time, and to the extent the delays are attributable to the Contractor the Contractor agrees that it will, as necessary, or as directed by the PDB, with County concurrence, take action at no additional cost to the County to improve the progress of the work, including increasing manpower, increasing the number of working hours per shift or shifts per working day, increasing the amount of equipment at the site, and any other measure reasonably required to complete the work in a timely fashion.

#### **00700-57 DILIGENCE**

The Contractor's failure to substantially comply with the requirements of the preceding paragraph may be grounds for determination by the County that the Contractor is failing to prosecute the work with such diligence as will insure its completion within the time specified. In such event, the County shall have the right to furnish, from its own forces or by contract, such additional labor and materials as may be required to comply with the schedule after 48 hours written notice to the Contractor, and the Contractor shall be liable for such costs incurred by the County.

#### **00700-58 SET-OFFS**

Any monies due to the Contractor pursuant to the preceding paragraph of this agreement may be deducted by the County against monies due from the County to the Contractor.

#### **00700-59 REMEDIES CUMULATIVE**

The remedies of the County under Articles 00700-56, 00700-57, and 00700-58 are in addition to and without prejudice to all of the rights and remedies of the County at law, in equity, or contained in this agreement.

#### **00700-60 TITLE TO MATERIALS**

No materials or supplies shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sales contract or other agreement by which any interest is retained by the seller. The Contractor hereby warrants that it has good and marketable title to all materials and supplies used by it in the work, and the Contractor further warrants that all materials and supplies shall be free from all liens, claims, or encumbrances at the time of incorporation in the work.

#### **00700-61 INSPECTION OF MATERIALS**

All materials and equipment used in the work and construction of the project shall be subject to adequate inspection and testing in accordance with accepted standards and in accordance with the requirements of the contract documents. Additional tests performed after the rejection of materials or equipment shall be at the Contractor's expense.

#### **00700-62 CONSTRUCTION MANAGER'S PRESENCE DURING TESTING**

All tests performed by the Contractor shall be witnessed by the County and PDB unless the requirement therefore is waived in writing. The County or PDB may perform additional tests on materials previously tested by the Contractor, and the Contractor shall furnish samples for this purpose as requested.

#### **00700-63 MATERIALS INCORPORATED IN WORK**

The Contractor shall furnish all materials and equipment to be incorporated in the work. All such materials or equipment shall be new and of the specified quality. Manufactured materials and equipment shall be obtained from sources which are currently manufacturing such materials, except as otherwise specifically approved by the County or PDB with County concurrence.

#### **00700-64 STORAGE OF MATERIALS**

Materials and equipment to be incorporated in the work shall be stored in such a manner as to preserve their quality and fitness for the work and to facilitate inspection.

Storage and protection of the equipment and materials upon delivery are not in the Contractor's scope.

#### **00700-65 PAYROLL REPORTS**

The Contractor may be required to furnish payroll reports to the PDB and the County as required by the Owner Controlled Insurance Program.



**00700-66 CONTRACTORS' REPRESENTATIVE**

Before beginning work, the Contractor shall notify the PDB and the County in writing of one person within its organization who shall have complete authority to supervise the work, receive orders from the PDB, with County concurrence, and represent the Contractor in all matters arising pursuant to this agreement. The Contractor shall not remove its representative without first designating in writing a new representative. The Contractor's representative shall normally be present at or about the site of work while the work is in progress. When neither the Contractor nor its representative is present at the work site, the superintendent, foreman, or other of the Contractor's employee in charge of the work shall be an authorized representative of the Contractor.

**00700-67 SPECIALTY SUB-CONTRACTORS**

The Contractor may utilize the services of specialty subcontractors on those parts of the project which, under normal contracting practices, are performed by specialty subcontractors. The Contractor shall not award more than seventy-five percent of the work to subcontractors.

**00700-68 INSPECTION BY THE CONSTRUCTION MANAGER**

All permanent work pursuant to this agreement shall be subject to inspection by the County and/ or PDB for conformity with contract drawings and specifications. The Contractor shall give the County and PDB reasonable advance notice of operations requiring special inspection of a portion of the work.

**00700-69 WORK COVERED PRIOR TO PDB's OR COUNTY'S INSPECTION**

In the event that work is covered or completed without the approval of the PDB or the County, and such approval is required by the specifications or required in advance by the PDB or the County, the Contractor shall bear all costs involved in inspection notwithstanding conformance of such portion of the work to the contract drawings and specifications.

**00700-70 SCHEDULING OF THE WORK**

The work of this contract shall be planned, scheduled, executed, and reported as required by the Contract Documents.

**00700-71 PROGRESS ESTIMATES**

The Contractor shall prepare a written report for the PDB's approval, with County concurrence, on County forms, of the total value of work performed and materials and equipment obtained to the date of submission. Such a report must accompany each request for a progress payment and is subject to review by the PDB and the County. Approval of a progress estimate or tendering of a progress payment shall not be considered an approval or acceptance of any work performed, and all estimates and payments shall be subject to correction in subsequent estimates. Progress payments shall be made for all completed activities and for materials suitably stored.

**00700-72 PROGRESS PAYMENTS**

Upon approval of each monthly estimate of work performed and materials furnished, the County shall approve payment to the Contractor for the estimated value of such work, materials, and equipment, less the amount of all prior payments and any liquidated damages. The Contractor will be paid 100 percent, less retainage, of the cost of materials properly delivered on-site or at a bonded and insured off-site location but not incorporated into the work. Payments for materials or equipment delivered shall be

conditioned upon submission by the Contractor of bills of sale to establish the County's title to such materials or equipment. The Contractor's request for payment shall provide sufficient detail as to the work completed or materials purchased for which payment is requested to permit meaningful review by the County and PDB.

### **00700-73 TIME OF PAYMENT**

The Contractor will be paid within 30 days following receipt of an approved Progress Estimate. The Contractor expressly agrees that the payment provisions within this Contract shall supersede the rates of interest, payment periods, and contract and subcontract terms provided for under the Georgia Prompt Pay Act, O.C.G.A. §13-11-1 et seq., and that the rates of interest, payment periods, and contract and subcontract terms provided for under the Prompt Pay Act shall have no application to this Contract. The County shall not be liable for any late payment interest or penalty. Notwithstanding the foregoing, if the County fails to pay Contractor amounts owed when due and fails to cure such nonpayment within thirty (30) days, the Contractor may suspend the work until such payments are made, and the Contract Price and Contract Time shall be equitably adjusted.

**Submittal of Invoices:** Invoices shall be submitted as follows:

**Via Mail:**

Fulton County Government  
141 Pryor Street, SW  
Suite 7001  
Atlanta, Georgia 30303  
Attn: Finance Department – Accounts Payable

OR

**Via Email:**

Email: [Accounts.Payable@fultoncountyga.gov](mailto:Accounts.Payable@fultoncountyga.gov)

At minimum, original invoices must reference all of the following information:

- 1) Vendor Information
  - a. Vendor Name
  - b. Vendor Address
  - c. Vendor Code
  - d. Vendor Contact Information
  - e. Remittance Address
- 2) Invoice Details
  - a. Invoice Date
  - b. Invoice Number (uniquely numbered, no duplicates)
  - c. Purchase Order Reference Number
  - d. Date(s) of Services Performed
  - e. A written report of the total value of work performed and materials and equipment obtained to the date of submission
- 3) Fulton County Department Information (needed for invoice approval)
  - a. Department Name

b. Department Representative Name

**00700-74 RETAINAGE**

The County shall retain from each progress payment ten percent of the estimated value of the work performed until the progress payments, including retainage, total 50 percent of the contract price. If a contract includes two or more projects or assignments that have been separately priced and have separate budgets, and the performances of such projects or assignments are not related to or dependent upon the performance of any other, the 50 per cent limit shall be based upon the price for each individual project or assignment. Thereafter, no further retainage shall be withheld so long as the Contractor is making satisfactory progress to insure completion of the work within the time specified therefore. The County may reinstate the ten percent retainage in the event the County determines that the Contractor is not making satisfactory progress to complete the work within the time specified in this agreement or in the event that the PDB advises the County on a specific cause for such withholding. The County may also withhold retainage upon substantial completion of the work as provided in O.C.G.A. §13-10-81(c).

**00700-75 PAYMENT OF SUBCONTRACTORS**

The Contractor shall promptly pay each subcontractor upon the receipt of payment from the County. Such payment shall be made from the amount paid to the Contractor pursuant to the subcontractor's work. The Contractor shall also maintain the records of the percentage retained from payments to the Contractor pursuant to such subcontractor's work. The Contractor shall procure agreements from each subcontractor requiring each subcontractor to pay their subcontractors, agents and employees in a similar manner. The County reserves the right to inquire of any subcontractor, supplier, materialmen, or subconsultant, the status of any indebtedness of the Contractor. The County further reserves the right to require the Contractor to designate on each instrument of payment exceeding \$400.00 to subcontractors, suppliers, materialmen, and subconsultants that such payment is on account of the work under this Contract.

**00700-76 COUNTY'S RESPONSIBILITIES TO SUBCONTRACTORS**

Neither the County nor the PDB shall have any obligation to pay any subcontractor except as otherwise required by law.

**00700-77 PROGRESS PAYMENTS - ACCEPTANCE OF WORK**

Certification of progress payments, as well as the actual payment thereof, shall not constitute the County's acceptance of work performed pursuant to this agreement.

**00700-78 PAYMENTS IN TRUST**

All sums paid to the Contractor pursuant to this agreement are hereby declared to constitute trust funds in the hands of the contractor to be applied first to the payment of claims of subcontractors, laborers, and suppliers arising out of the work, to claims for utilities furnished and taxes imposed, and to the payment of premiums on surety and other bonds and on insurance for any other application.

**00700-79 JOINT PAYMENTS**

The County reserves the right to issue any progress payment or final payment by check jointly to the Contractor and any subcontractor or supplier.

**00700-80 RIGHT TO WITHHOLD PAYMENT**

The County may decline to approve payment and may withhold payment in whole or in part to the extent reasonable and necessary to protect the County against loss due to defective work, probable or actual third party claims, the Contractor's failure to pay subcontractors or materialmen, reasonable evidence that the work will not be completed within the contract time or contract price or damage to the County or any other contractor on the project.

**00700-80.5 PARTIAL UTILIZATION**

Prior to Substantial Completion of all the Work, County may use or occupy any completed portion of the Work if expressly identified in and permitted by the Contract Documents, or which County, PDB and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by the County for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:

1. County at any time may request in writing that Contractor permit the County to use or occupy any part of the Work which the County believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, County, and PDB will follow the procedures of Paragraph 00700-81 for that part of the Work.
2. Contractor may at any time notify the County in writing that Contractor considers a part of the Work ready for its intended use and substantially complete and request that County, with PDB concurrency, issue a certificate of Substantial Completion for that part of the Work.
3. Within a reasonable time after requests made pursuant to paragraphs (1) or (2) above, the County, Contractor and PDB shall make an inspection of that part of the Work to determine its status of completion. If PDB does not consider that part of the Work to be substantially complete, PDB will notify the County and Contractor in writing giving reasons therefore. If the County and PDB consider that part of the Work to be substantially complete, the provisions of Paragraph 00700-81 will apply for the applicable portion(s) of the Work.
4. No use or occupancy or separate operation of part of the Work may occur prior to the County securing and providing evidence to the Contractor of applicable property, liability, and risk of loss insurances for that part of the Work.

**00700-81 CERTIFICATE OF SUBSTANTIAL COMPLETION**

Upon the Contractor's submission of a request for a certificate of Substantial Completion of all or a portion of the work, the County and PDB shall inspect such work and determine whether that work is Substantially Complete. If the work is Substantially Complete, the County shall issue a certificate of Substantial Completion of all or a portion of the work which shall establish the date of Substantial Completion for the work or a portion thereof, shall state the responsibilities of the County and the Contractor for security, maintenance, heat, utilities, damage to the work and insurance, and shall fix the time within which the Contractor shall complete the items submitted by the Contractor as requiring correction or further work. The certificate of substantial completion of the work

shall be submitted to the County and the Contractor for their written acceptance of the responsibilities assigned to them pursuant to such certificate.

If in the reasonable opinion of the PDB, the work is not substantially complete, the PDB shall notify the County and Contractor of such, in writing, and outline requirements to be met to achieve Substantial Completion.

In addition to any other requirements provided within the Contract Documents, Contractor shall successfully complete Performance and Acceptance Testing of the Membrane System in order to achieve Substantial Completion.

#### **00700-82 PAYMENT UPON SUBSTANTIAL COMPLETION**

Upon Substantial Completion of all or a portion of the work and upon application by the Contractor and approval by the County, the County shall make payment reflecting 100% work in question completed, less value of work remaining as determined by County and PDB and any authorized retainage.

#### **00700-83 COMMENCEMENT OF WARRANTIES and GUARANTEES**

Warranties and Guarantees required by this agreement shall commence on the date of Substantial Completion of the work or a portion thereof, whichever is earlier, unless otherwise provided in the Contract Documents or in the certificate of Substantial Completion.

#### **00700-84 FINAL PAYMENT - WAIVER OF CLAIMS, DISPUTE OF FINAL PAYMENT**

Following the County's issuance of the certificate(s) of Substantial Completion and the Contractor's completion of the work pursuant to this agreement, the Contractor shall forward to the PDB and the County a written notice that the work is ready for final inspection and acceptance. If after inspection the PDB, with County concurrence, certifies that the work is complete and issues written notification of such to the Contractor, the Contractor shall forward to the PDB and the County a final application for payment. The PDB, with County concurrence, shall issue a certificate for payment, which shall approve final payment to the Contractor and shall establish the date of final completion. The acceptance of the Final Completion payment shall constitute a waiver of all claims by the Contractor except those previously made in writing and/or identified by the Contractor as unsettled at the time of application for payment at Final Completion and except for the retainage sums due at final acceptance.

In the event the Contractor timely disputes the amount of the final payment, the amount due the Contractor shall be deemed by the Contractor and the County to be an unliquidated sum and no interest shall accrue or be payable on the sum finally determined to be due to the Contractor for any period prior to final determination of such sum, whether such determination be by agreement of the Contractor and the County or by final judgment of the proper court in the event of litigation between the County and the Contractor. The Contractor specifically waives and renounces any and all rights it may have under O.C.G.A. §13-6-13 and agrees that in the event suit is brought by the Contractor against the County for any sum claimed by the Contractor under the Contract or for any extra or additional work, no interest shall be awarded on any sum found to be due from the County to the Contractor in the final judgment entered in such suit. All final judgments shall draw interest at the legal rate, as specified by law.

#### **00700-85 DOCUMENTATION OF COMPLETION OF WORK**

Neither the final payment nor the remaining retainage shall become due until the Contractor submits the following documents to the PDB and the County:

- a. An affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the work have been paid other otherwise satisfied;
- b. The surety's consent to final payment; and
- c. Any other data required by the contract documents, including releases, waivers of liens, and documents of satisfaction of debts.

In the event that a subcontractor refuses or unable to furnish a release or waiver as required by the County, the Contractor may furnish a bond satisfactory to the County to indemnify the County against such loss. In the event that any lien or indebtedness remains unsatisfied after all payments are made, the contractor shall refund to the County all moneys that the County may become compelled to pay in discharging such lien or other indebtedness, including all costs and reasonable attorney's fees.

#### **00700-86 GOVERNING LAW**

Each and every provision of this agreement shall be construed in accordance with and governed by Georgia law. The parties acknowledge that this contract is executed in Fulton County, Georgia and that the contract is to be performed in Fulton County, Georgia. Each party hereby consents to the Fulton Superior Court's sole jurisdiction over any dispute which arises as a result of the execution or performance of this agreement, and each party hereby waives any and all objections to venue in the Fulton Superior Court.

#### **00700-87 CHANGES IN THE WORK**

##### **A. CHANGE ORDERS**

1. A Change Order is a written order to the Contractor signed to show the approval and the authorization of the County, issued after execution of the Contract, authorizing a change in the Work and/or an adjustment in the Contract Sum or the Contract Time. Change Orders shall be written using forms designated by the County with Contractor providing supporting documentation as required by the County. The Contract Sum and the Contract Time may be changed only by approved Change Order pursuant to Fulton County Code Section 102-420. The amount payable by the Change Order is payment in full for all direct and indirect costs incurred and related to the work under said Change Order, including but not limited to delays, imports, acceleration, disruption and extended overhead. A Change Order signed by the Contractor indicates the Contractor's agreement therewith, including the adjustment in either or both of the Contract Sum or the Contract Time.
2. The County, without invalidating the Contract, may order changes in the Work within the general scope of the Contract as defined herein. The time allowed for performance of the work and the contract price to be paid to the Contractor may be adjusted accordingly.
3. The cost or credit to the County resulting from a change in the Work shall be determined in one or more of the following ways:

- a. By mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
  - b. By unit prices stated in the Contract Documents or subsequently agreed upon;
  - c. By cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
  - d. By the method provided in Subparagraph A4 below.
- 4. If none of the methods set forth in Subparagraphs 3a, 3b, or 3c above is agreed upon, the Contractor, provided a written order signed by the County is received, shall promptly proceed with the Work involved. The cost of such Work shall then be determined on basis of actual expenditures and savings of those performing the Work attributable to the change. The cost of the change shall include only the items listed in Subparagraph 5a below, and in the case of either a decrease or an increase in the Contract Sum, an allowance for overhead and profit in accordance with the schedules set forth in Subparagraphs 5b and 6 below shall be applied to the cost or credit.
  - a. In such case, and also under Subparagraph 3a above, the Contractor shall keep and present, in such form as the County may prescribe, an itemized accounting of all actual costs expended, together with appropriate supporting data for inclusion in a Change Order.
  - b. All hourly rate charges shall be submitted to the County for prior review and approval. All hourly rate charges shall be properly supported as required by the County with certified payrolls, or their acceptable equivalent. When authorized to proceed for a given change and actual expenditures have been made prior to execution of a Change Order for the entire change, such actual expenditures may be summarized monthly, and if approved, incorporated into a Change Order. When both additions and credits covering related Work or substitutions are involved in any one change, the allowance for overhead and profit shall be figured on the basis of the net increase or decrease, if any, with respect to that change.
- 5. In Subparagraphs 3 and 4 above, the items included in "Cost and Overhead" shall be based on the following schedule:
  - a. Unless otherwise provided in the Contract Documents, "Cost" shall be limited to the following: cost of materials incorporated into the Work, including sales tax and cost of delivery; cost of direct and reasonable indirect labor (labor cost may include a pro rata share of foreman's account of the change) including social security, old age and unemployment insurance, and fringe benefits required by agreement or custom; workers' or workmen's compensation insurance; rental value of equipment and machinery, fuel; costs for preparing Shop Drawings.

- b. Unless otherwise provided in the Contract Documents, "Overhead" shall include the following: bond and insurance premiums including increase and decreases from change in the Work, , wages of timekeepers, and clerks, , general office expense, the cost of additional reproduction for the Contractor's subcontractors beyond that agreed upon in the Contract Documents, construction parking, , and overhead charges which would be customary and expended regardless of the change in the Work due to other overlapping activities which are included as part of the original Contract, and all other expenses not included in "Cost" above.
  - c. In the event that a change is issued by the County which would require the expenditure of substantial amounts of special supervision (beyond the foreman level) by the Contractor, the Contractor may, at the sole direction of the County, be allowed to incorporate these charges into the agreement cost for the change.
- 6. In Subparagraphs 3 and 4 above, the allowance for overhead and profit combined, included in the total cost or credit to the County, shall be based on the following schedule:
  - a. For the Contractor, for any work performed by the Contractor's own forces, ten (10) percent of the cost.
  - b. For the Contractor, for any work performed by a Contractor's subcontractor, five (5) percent of the amount due the subcontractor.
  - c. For each construction subcontractor or construction sub-subcontractor involved, for any work performed by that subcontractor's or sub-subcontractor's own forces, ten (10) percent of the cost.
  - d. For each construction subcontractor, for work performed by a construction sub-subcontractor, five (5) percent of the amount due to the sub-subcontractor.
  - e. Cost to which overhead and profit is to be applied shall be determined in accordance with Subparagraph 5 above unless modified otherwise.
  - f. For each design subcontractor or design sub-subcontractor involved, work will be performed at agreed upon rates.
- 7. In order to facilitate checking of quotations for extras or credits, all proposals or bids, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs, including labor cost, materials and subcontracts. Labor and materials shall be itemized in the manner defined in Subparagraph 4 above. Where major cost items are subcontracts, they shall be itemized also. In no case shall a change be approved without such itemization.
- 8. No payment shall be made for any changes to the contract that is not included in a fully executed Change Order.

**B. CONCEALED, UNKNOWN AND DIFFERING CONDITIONS**



1. Should concealed conditions be encountered in the performance of the Work below the surface of the ground, or should concealed or unknown conditions in an existing structure be at variance with the conditions indicated by the Contract Documents, or should unknown physical conditions below the surface of the ground or concealed or unknown conditions in an existing structure of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract, be encountered, the Contract Sum and Contract Time shall be equitably adjusted by Change Order upon request by either party made **within twenty (20) days after the first observance** of the conditions. No such request for equitable adjustment shall be valid unless the Contractor complies with this (20) days' notice and Subparagraph C.1. below.
2. The Contractor shall promptly, and before such conditions are disturbed, notify the PDB and the County in writing of any claim of concealed, unknown or differing conditions pursuant to this paragraph. The County shall authorize the PDB to investigate the conditions, and if it is found that such conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the Work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be recommended to the County.
3. No claim of the Contractor under this clause shall be allowed unless the Contractor has given the notice required in (a) above, prior to disturbing the condition.
4. No claim by the Contractor for an equitable adjustment shall be allowed if first asserted after final payment under this Contract.
5. Any materially differing site condition as between what is shown on the Drawings and Specifications and actually found on site shall be immediately reported to the PDB and the County in writing prior to the commencement of Work at the site. Failure of the Contractor to notify the PDB and the County in writing of the differing site condition prior to performance of Work at the site shall constitute a waiver of any claim for additional monies. Any Change Order necessitated by the differing site condition shall be processed as provided under "Changes in the Contract".

#### C. REQUESTS FOR ADDITIONAL COST

1. If the Contractor wishes to request an increase in the Contract Sum, the Contractor shall give the PDB and the County written notice thereof within twenty (20) days after the occurrence of the event, or identification of the conditions, giving rise to such request. This notice shall be given by the Contractor before proceeding to execute the Work, except in an emergency endangering life or property in which case the Contractor shall proceed in accordance with Article 00700-25 and Subparagraph A.4 above. No such request shall be valid unless so made within the twenty (20) days specified above. If the County and the Contractor cannot agree on the amount of the adjustment in the Contract Sum, it shall be determined by the County in accordance with 00700-87 Para.A.4. Any

change in the Contract Sum resulting from such claim shall be documented by Change Order.

2. If the Contractor claims that addition cost is involved because of, but not limited to (1) any written interpretation pursuant to General Condition 00700-17 of this Agreement, (2) any order by the County to stop the Work pursuant to Articles 00700-25 and 00700-37 of this Agreement where the Contractor was not at fault, or (3) any written order for a minor change in the Work issued pursuant to Paragraph D below, the Contractor shall submit a request for an increase in the Contract Sum as provided in Subparagraph C.1 above. No such claim shall be valid unless the Contractor complies with Subparagraph C.1 above and approved by the County pursuant to Fulton County Code Section 102-420.

#### **D. MINOR CHANGES IN THE WORK**

The County may order minor changes in the Work not involving an adjustment in the Contract Price, extension of the time allowed for performance of the work and not inconsistent with the intent of the Contract Documents. Such changes shall be effected by a written Change Directive issued by the County, and shall be binding on the County and the Contractor. The Contractor shall carry out such written orders promptly.

#### **E. BONDS**

If any change order results in an increase in the contract price, the Contractor shall increase the penal sum of the performance and payment bonds to equal the increased price.

#### **00700-88 DISAGREEMENT WITH ORDERS FOR CHANGE**

Contractor's written acceptance of a Change Order or other order for changes shall constitute its final and binding agreement to the provisions thereof and a waiver of all claims in connection therewith, whether direct or consequential in nature. Should Contractor disagree with any order for changes, it may submit a notice of potential claim to the County, at such time as the order is set forth in the form of a Change Order. Disagreement with the provisions of an order for changes shall not relieve Contractor of its obligation under Article 00700-87 of this Agreement.

#### **00700-89 NO WAIVER OF REMEDIES**

Exercise by the County of any remedy is not exclusive of any other remedy available to County and shall not constitute a waiver of any such other remedies. Failure of the County to exercise any remedy, including breach of contract remedies, shall not preclude the County from exercising such remedies in similar circumstances in the future.

#### **00700-90 LAND AND RIGHTS-OF-WAY**

The owner will provide, as indicated in the Contract Documents and prior to Notice to Proceed, the lands upon which the work is to be done, right-of-way for access thereto, and such other lands which are designated for the use of the Contractor. The Contractor shall confine the Contractor's work and all associated activities to the easements and other areas designated for the Contractor's use. The Contractor shall comply with any limits on construction methods and practices which may be required by easement agreements. If, due to some unforeseen reason, the necessary easements are not obtained, the Contractor shall receive an equitable extension of contract time and

contract price dependent upon the effect on the critical path of the project schedule or the County may terminate the Contract for its convenience.

#### **00700-91 COORDINATION WITH STATE DEPARTMENT OF TRANSPORTATION**

No clearing or grading shall be completed by Contractor within the State Department of Transportation (DOT) area under construction. The Contractor must coordinate its construction scheduling with DOT.

If the Contractor begins work before DOT's completion date, she must obtain the approval of DOT before starting work in the area. The state DOT has the right to stop the Contractor's work the DOT area.

The Contractor shall receive no additional compensation or damages resulting from delay or work stoppage from DOT actions or scheduling.

Contractor shall obtain DOT drawings of the DOT, project area for verification of road geometry, storm drains, etc. from Georgia Department of Transportation or Fulton County. The Contractor is responsible for obtaining any pertinent DOT revisions.

#### **00700-92 OWNERSHIP OF DOCUMENTS**

Contractor's professional work product which has been prepared solely for the purpose of this Project, including, but not limited to, the engineering, design, construction documents, drawings, technical specifications, whether in hard copy or electronic form, shall become the property of County when Contractor has been fully compensated as set forth in the Agreement and General Conditions. Contractor may keep copies of all work products for its records. Contractor and County recognize that any work product submitted in performance of this Agreement is intended only for the Project described in this Agreement. County's alteration of Contractor's work product or its use for any other purpose shall be at County's sole risk and liability.

#### **00700-93 TITLE AND RISK TRANSFER**

Risk of loss or damage to the Goods shall pass from Contractor to County in accordance with the timing when the Goods are delivered to the project site. Title to and the right to possess the Goods shall pass from the Contractor to the County:

- at the same time when the risk of loss or damage to the Goods is passed to the County as stipulated above, however, the right to repossess the Goods are to be retained by Contractor until Contractor has received the payment for the delivered goods, or
- when the Contractor receives the payment for the delivered goods

Whichever happens first.

The Contractor shall witness the equipment unloading and confirm no damages during shipment of the delivered Goods.

I N D E X

<u>SUBJECT</u>	<u>GENERAL CONDITION ARTICLE #</u>
Administration of Contract	17
Applicable Law	7
Assignment	13
Blasting and Excavation	26
Changes	87, 88
Clean Site	29
Codes	4
Commencement of Work	49
Contract Documents	2
Contractor's Representative	66
Defective Work	31, 32
Definitions	3
Delay	51, 52, 54, 55
Extension of Time	52, 53, 54
Familiarity of Time	1, 22
Final Payment	84
Governing Law	86
High Voltage Lines	27
Inclement Weather	53
Indemnification	15
Inspections	23, 61, 62, 68, 69
Interruption	48
Licenses	8
Liquidated Damages	46, 48
New Materials	33, 63
Notices	24
Payment	72, 73, 75
Payment of Subcontractors	75, 76
Payment Upon Substantial Completion	82, 84
Payroll Reports	65
Permits	8

Progress Payments	72, 73, 77, 78, 79, 80
Protection of Work	30, 64
Records Inspection	45
Retainage	11, 74
Safety	25
Scaffolding and Staging	28
Scheduling	70
Service of Process	14
Stop Work Order	37
Subcontractors	67, 76
Substantial Completion	81
Suspension	48
Supervision of Work	16, 66
Surety's Responsibility	17
Taxes	9, 10
Termination for Cause	38, 44, 47
Termination for Convenience	39, 40, 41
Time of the Essence	50
Warranties	33, 34, 35, 36
Work Behind Schedule	56

**EXHIBIT A**  
**FINAL AFFIDAVIT**

TO FULTON COUNTY, GEORGIA

I, \_\_\_\_\_, hereby certify that all suppliers of materials, equipment and service, subcontractors, mechanic, and laborers employed by \_\_\_\_\_ or any of his subcontractors in connection with the design and/or construction of \_\_\_\_\_ at Fulton County have been paid and satisfied in full as of \_\_\_\_\_, 20\_\_, and that there are no outstanding obligations or claims of any kind for the payment of which Fulton County on the above-named project might be liable, or subject to, in any lawful proceeding at law or in equity.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

Personally appeared before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_. \_\_\_\_\_, who under Oath deposes and says that she/he is \_\_\_\_\_ of the firm of \_\_\_\_\_, that she/he has read the above statement and that to the best of her/his knowledge and belief same is an exact true statement.

\_\_\_\_\_  
Notary Public

\_\_\_\_\_  
My Commission expires

END OF SECTION

# **EXHIBIT B**

## **Special Conditions**

## **EXHIBIT B**

### **SPECIAL CONDITIONS**

#### **Kubota Membrane USA**

Contractor for: Fulton County – Department of Public Works

Fulton County Contract No. 18RFP1032018K-DJ

"Project": Membrane System for Big Creek Water Reclamation Facility Expansion - Phase 2B

Standard Operating Procedures outlined within this Exhibit B, by execution of the Contract Agreement between the Kubota Membrane USA ("Contractor") and Fulton County ("Owner" or "County"), are incorporated into and made a part of that Agreement. The Contractor agrees to be bound by the conditions for project administration and scope of supply as set forth herein.

#### **1. General**

This document is intended to assist the Contractor in fulfilling the administrative requirement of this Contract, further defining the scope of supply, as well as to prescribe certain rules of conduct of all employees assigned to the jobsite. For the scope of this Contract the word "Contractor" within the Contract Documents shall mean Kubota Membrane USA in any document referenced by this contract.

Scope of Work provided by Kubota Membrane USA under this Contract is part of the overall Big Creek Water Reclamation Facility Expansion Project. The expansion is being delivered through a progressive design-build project by the Progressive Design-Builder, a joint venture team of Archer Western and Brown and Caldwell ("PDB"). County entered into a separate Phase 2B contract with the PDB for Project construction and engineering services during construction, and Installation of the equipment supplied by Kubota Membrane USA under this Contract. As part of the Scope of Work under this contract Kubota Membrane USA is required to communicate and coordinate Work with the PDB throughout the project execution per guidelines outlined within this Exhibit B, or any other guidelines outlined within the Contract.

#### **2. Contract Document Availability**

Electronic Copies of the Contract Documents can be obtained from:

<https://walshgroup.sharepoint.com/sites/220098/external/>

No hard copies of Contract Documents will be provided by PDB or County. Exhibit F indicates the list of Addenda, Project Specifications, and Project Drawings applicable to this project. It is the Contractor's responsibility to obtain and thoroughly review these documents in their entirety.

#### **3. Shop Drawings, Cut Sheets, Catalogs, Samples**

A) Contractor is to provide submittal to PDB per Specification Section 01 33 00 – Submittal



Procedures, and as called for in any other relevant specification sections.

B) In addition to providing submittals as outlined in Para. A above Contractor is required to supply and coordinate Revit models (Revit 2018 or as directed by PDB) of the equipment and/ or materials supplied on the project.

C) This material can be hand delivered, mailed or emailed to the PDB Office at:

**Archer Western Construction, LLC**  
**Job# 220098**  
**1030 Marietta Hwy, Suite 200**  
**Roswell, GA 30075**

**ATTN: Jason Ray,**  
**Email: jray@walshgroup.com**

D) Furnish subject material in the following quantities:

Working Drawings	-	(1) Digital Searchable Copy in PDF Format Sent via E-Mail or USB and Three (3) Printed Copies (upon request)
Shop Drawings	-	(1) Digital Searchable Copy in PDF Format Sent via E-Mail or USB and Three (3) Printed Copies (upon request)
Product Data/Cut Sheets - Catalogs/Calculations Certifications	-	(1) Digital Searchable Copy in PDF Format Sent via E-Mail or USB and Three (3) Printed Copies (upon request)
Samples	-	Samples – Six (6)
Manuals	-	(1) Electronic Copy in PDF Format Sent Via E-Mail or USB and Six (6) Printed Copies (upon request)

E) Your Standard letter of transmittal should identify the specification section and paragraph for which the submittal is made and/or the drawing referenced appropriate to the submittal. Only submitted material furnished as noted in this paragraph will be reviewed and processed. Non-conforming submittals will be returned to the sender without action.

F) Prior to submission of any materials for the PDB's review, the Contractor shall affix a label or title block citing the information called for in (D) above to each and every submittal item per specification. Submittals not bearing this label will be returned for correction.

G) The PDB review is to assist the Contractor, and in no way relieves any obligations under this contract with the County. No waiver of responsibility for taking field measurements is warranted by this review, nor does the County take or guarantee such measurements to the Contractor unless responsibility is specifically assigned elsewhere in this Agreement. No time extension shall be granted due to the Contractor's refusal or failure to meet the above requirements.

H) Upon receipt of PDB submittal review comments, or upon notification from PDB, Contractor shall have 14 calendar days to provide any required submittals and/ or resubmittals. Contractor shall be

responsible for any damages resulting from delay caused by failure to provide submittals and/ or resubmittals on time.

- I) A third submittal for any item that has already been submitted and corrected twice, that is not the direct result of a change in the contract documents, will result in additional costs for the PDB review time for which Contractor will be responsible.
- J) Contractor shall allow a minimum of 30 working days from date of receipt by PDB for review and return of any submitted item for approval. "Large submittals" or submittals received later than scheduled may require additional review time.
- K) Contractor's submittals shall include a copy of all applicable contract drawings and specifications with each paragraph check marked to confirm compliance. Deviations from the Contract Documents shall be clearly noted and explained on a separate document. If deviations are not clearly called out in this manner and happen to be approved by the PDB, with County concurrence, then subsequently disapproved, then the Contractor will be responsible for any corrective action required to bring equipment and materials into compliance. PDB will return, without review, any submittal that does not follow this contract requirement.
- L) Contractor's submittals must also clearly show any specific tolerances and/or dimensions that must be taken into account during construction to accommodate installation of Contractor equipment. Contractor will be liable for any remediation work required if Contractor does not comply with this requirement.
- M) Contractor shall coordinate with PDB on the location, alignment, fitment, and connections of the Contractor furnished equipment with the mechanical, structural, and electrical systems provided by PDB. If any changes are required to PDB-furnished equipment, connections, structural supports, and/or electrical requirements due to Contractor's deviations from contract documents, then all costs associated with such changes or redesign shall be paid for by Contractor. Project time of completion will not be extended due to alternate system redesign.

#### **4. Deliveries**

Contractor shall pre-assemble and ship the largest assembly that can fit on a truck for installation on-site. Weights of all assemblies shall be communicated and coordinated with PDB prior to delivery. All deliveries to the jobsite shall be between the hours of 8:00 a.m. and 2:00 p.m., Monday through Friday, via flatbed truck unless prior arrangements are made with the Project Superintendent. A minimum of 24-hours notice of the scheduled shipment departure, number of pieces, weight, and their contents shall be given to the jobsite prior to shipment from the factory. The shipment may be rejected at no cost to PDB if prior notification and detailed bill of materials has not been received. All deliveries shall be clearly marked with manufacturer's name, County's Contract number, equipment type, and any "chain of custody" documents required by the Contract Documents. Material shipped from a 3<sup>rd</sup> party must include County's Contract number. Failure by the Contractor to include the contract number with a shipment will nullify any receiving signatures or acknowledgment of the delivery by the jobsite. Drop Shipping materials from second tier suppliers is strictly prohibited unless preapproved by the County and PDB. Failure to coordinate as required will result in rejection of the shipment.

Contractor shall provide manufacturer's recommended long-term storage requirements. Unless otherwise specified in this paragraph, all equipment and materials shall be suitable for long-term outdoor storage as delivered to the project site. Membranes, Control Panels, Blowers, Actuated Valves and Electronic Instruments need to be stored indoor. Any special procedures or maintenance requirements shall be provided to PDB prior to shipment. System/materials shall not be shipped without written request from PDB. No offsite storage charges shall apply unless the County requests a delay in the delivery.

If applicable, prior to shipment to the Project site Contractor is to provide information on special rigging requirements for the materials shipped.

Freight to the jobsite is the responsibility of Contractor.

## **5. Start-Up, Testing, and Training**

Contractor shall provide all required inspections, training, services, testing, materials, equipment, and reports required by the Contract Documents. Contractor shall also provide follow up visits to the site to review equipment performance, correct equipment problems, and conduct follow up Operation and Maintenance training as required by the PDB and the County.

Contractor shall provide the services of a factory trained representative (not a sales representative) to provide the pre-start up checkout, installation inspection, functional testing, operational testing, and performance testing in accordance with Division 01 of the specifications and the specific equipment specifications for the scope of work associated with this Contract.

Training during start up may be video-taped by the County or PDB and will become the property of the Owner.

Contractor shall submit an outline of instructional training program for demonstration and training, including a list of training modules and a schedule of proposed dates, times, length of instruction time, and instructor's names for each training module. Include learning objective and outline for each training module. Qualification data shall be provided for each training facilitator and instructor. Refer to Contract Documents for any additional documentation or services required by Contractor.

Contractor shall be responsible for all startup and testing that is detailed within the equipment specification to demonstrate compliance to the satisfaction of the PDB and the County. If the specification requires the PDB or County to be present for factory witness testing, the Contractor will pay reasonable costs for the PDB's and the County's personnel time and travel. Unless noted otherwise, test reports for witnessed or un-witnessed factory tests shall be submitted at least thirty (30) days prior to the scheduled delivery date. If samples for tests or certifications are required, then all expenses incurred in making and testing samples shall be paid for by Contractor.

Daily reports shall be provided to PDB by Contractor indicating time onsite, tasks accomplished, special equipment onsite, and any conflicts or issues encountered. Reports are required on a daily basis and will be used to confirm total number of days/trips onsite for field services.

Project schedule allows for one test duration. Should the Contractor test duration exceed the duration originally established between the PDB, County and the Contractor or as outlined within the Contract Documents, and additional time will be required to perform the re-test, any costs associated with extended/re-test durations should be borne by the Contractor in proportion to the Contractor's share of the responsibility for such extended/re-test durations. These costs will be in addition to the any damages for delay.

## **6. Spare Parts, Special Tools, and Lubricants**

Unless noted otherwise, spare parts shall not be shipped until equipment start up is scheduled by the PDB. Parts for dissimilar pieces of equipment shall be stored in separate shipping containers and labeled "Spare Parts" with 2-inch tall letters on the outside of all containers. Each container shall have a detailed list of content affixed to the container. Container shall be constructed of wood or plastic suitable for long term outdoor storage so they may be turned over to the County without modification. Any spare parts shipped prior to start up or shipped improperly packaged, may require shipment again at no cost to the County.

If applicable to supplied equipment, provide oil/lubricants for start-up of all equipment and sufficient supply for one replacement after manufacturer's recommended break-in period. Provide a list of at least three (3) major suppliers of oil/lubricants with product identification numbers for each type required. Contractor shall comply with any required standardization of fittings required for filling/draining of oil/lubricants.

Contractor shall provide all required safety guards, special tools, and accessories required for installation, service, operation, and maintenance of equipment.

## **7. Operation & Maintenance Manuals**

Contractor is to provide O&M Manuals per specification section 01 78 23 – Operation and Maintenance Data, and as may further be described in respective specification sections for which the Contractor is submitting. Manuals are to be submitted no later than 4 weeks after approved submittal or 60 days prior to equipment delivery whichever is sooner.

## **8. Equipment Identification and Signs**

Provide identification of all equipment and supplied piping as required by the Contract Documents. Identification tags shall be fixed to equipment in a conspicuous location and clearly identified on Shop Drawings. This includes labels, tagging, signs, stenciling, or any identification required by the Contract Documents. Additional tags shall be provided if required by the PDB or the County in order to clearly identify equipment for operation or maintenance after field installation.

Safety guards, signs, and labels shall be provided on all equipment as required by the PDB, the County or local authority.

## **9. Shop Painting and Coatings**

All equipment provided shall be finish coated per Division 9 Specifications to the fullest extent possible.

Contractor shall ensure compliance with the most stringent Painting or Protective Coating specification applicable to their scope of supply. Color selections shall be provided with the shop drawings for selection by the County and the PDB. Touch up paint shall be provided in a minimum One (1) quart container or Spray Can and shipped with the spare parts for each color and finish coat required.

If shop prime coating is required, then Contractor shall utilize primer compatible with the paint system specified in Contract Documents. The Contractor shall verify compatibility of paint with PDB prior to application of shop coatings and obtain PDB and County approval.

#### **10. Conduct and Safety Requirements**

The PDB Project Manager and/ or the County reserves the right to bar access to the site to any worker or employee who carries on in such a way as to inhibit the safe and timely progress of the construction operation. Specifically enforced will be prohibitions which bar the use of alcohol and/or drugs on the jobsite before, during and after working hours.

Contractor and/or their carriers delivering materials to the jobsite shall comply with the PDB safety policies, OSHA regulations, and the County's requirements while on the project site.

Contractor shall supply safety data sheets (SDS) prior to delivery of any materials onsite.

#### **11. PDB-Direct Correspondence**

The PDB will be represented at the Project Site or Regional Office by a PDB Project Manager. All Work coordination correspondence generated including, but not limited to submittals, scheduling, deliveries, design coordination, start-up and testing, routine correspondence and written inquiries by the Contractor should be directed to the PDB as in 3 (C) above, and the County representative shall be copied on all such correspondence. Any agreements, changes, and extras resulting from the Contractor's direct dealing with other consultants will not be recognized or considered for payment by the County. Only the County's Project Manager or designated representative can approve Extra Work and this must be done in writing.

When on-site, Contractor is required to provide the PDB project superintendent a daily report by 9:00 a.m. the following day. The daily report shall include a description of the work performed, hours on the site, manpower, subcontractors on the site and their work performed, deliveries and storage of permanent materials, weather, signed by the Contractor's site superintendent or representative.

#### **12. Escalation / Fuel Surcharge**

Contractor has included all necessary material escalation costs for the entire duration of this project unless noted otherwise. No reimbursement will be made for any fuel surcharges unless noted otherwise.

#### **13. N/A**

#### **14. Electrical, Controls, and Instrumentation**

Contractor shall comply with all related Division 26, Division 27, and Division 40 specifications for automation, electrical, communication, electronic safety, controls, instrumentation and process integration. Detailed wiring diagrams shall be provided with shop drawings for all electrical equipment, panels, and components with all field connections clearly labeled on a separate sheet. Field connections shall be labeled with the proper designation numbers or descriptions from the Contract Documents.

Basic requirements for controls and Control Strategies shall include a detailed sequence of operation and recommended set points for initial start-up. All field instruments and components shall be calibrated and certified in the field. Copies of all required software, licenses, and programming shall be provided if required by the Contract Documents.

## **15. Anchors, Supports, and Hardware**

Contractor shall supply all hardware, fasteners, required for a complete installation. All loose components shall be provided with sufficient mounting hardware or supports for locations shown on the Contract Documents. Recommendations shall be made for all anchoring systems required for the scope of supply including size, length, embedment, PE stamp, and design calculations if required by Contract Documents.

Contractor's scope of supply includes equipment and/or materials for which anchorage and bracing design services must be provided, all costs associated with these services shall be included in this contract.

## **16. Referenced Specifications**

In addition to any requirements outlined within the specific sections of the Contractor's scope of supply, Contractor shall review and comply with/ fulfill all the requirements of the project specifications, including, but not limited to, the following Divisions sections as it pertains to the scope of supply and services, defined herein and elsewhere in the Contract Documents:

- Division 1 – General Requirements
- Division 5 - Metals
- Division 9 - Finishes
- Division 26 - Electrical
- Division 27 - Communications
- Division 40 – Process Integration
- Division 43 – Process Gas and Liquid Handling, Purification, and Storage

Contractor shall comply with all requirements listed within the specification sections included in the above referenced divisions and be responsible for all costs associated with these requirements.

# **EXHIBIT C**

**Not Applicable (N/A)**

# **EXHIBIT D**

## **Cost Proposal**



# For Earth, For Life



Cost Proposal for

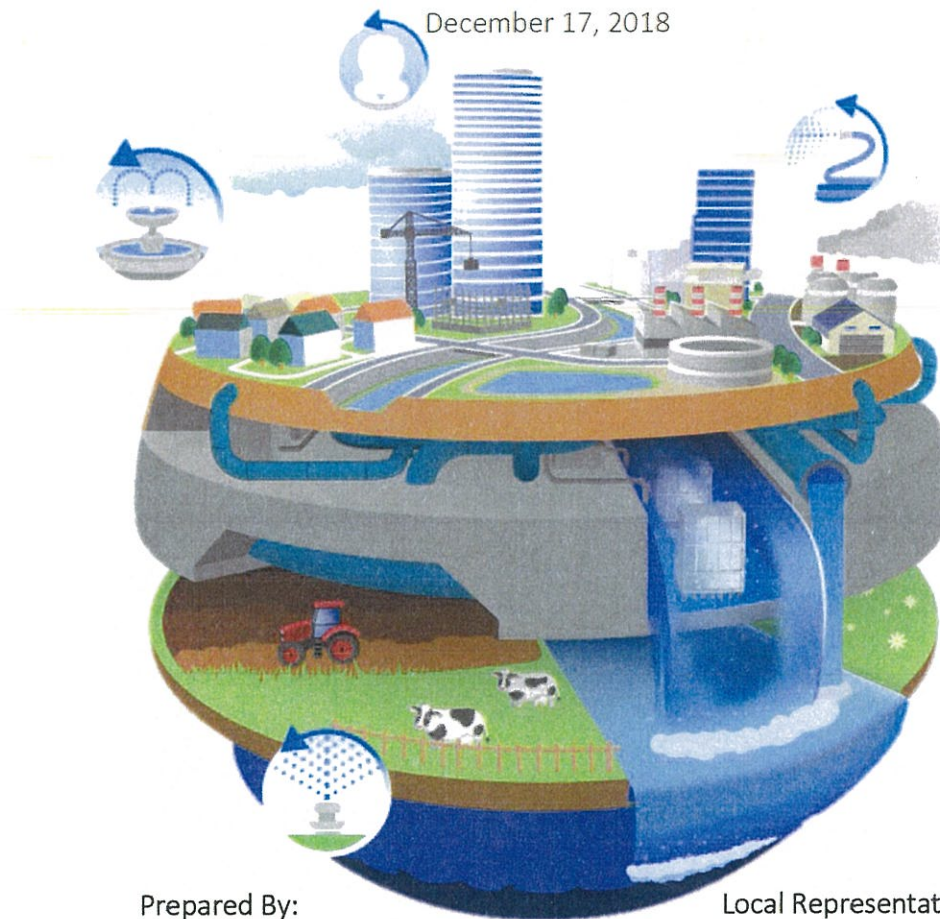
## Big Creek Water Reclamation Facility

Fulton County, GA



Membrane Bioreactor System

December 17, 2018



Prepared By:

Kubota Membrane USA  
11807 North Creek Parkway S., Suite B-109  
Bothell, WA 98011  
425-898-2858

Local Representation By:

Pump and Process Equipment  
Jay Boudreaux  
912-659-6180  
Jay@pumpandprocess.net



Kubota Membrane USA (KMU) has prepared this Cost Proposal for the Big Creek Water Reclamation Facility (WRF) Facility Expansion project competitive bid No. 18RFP1032018K-DJ. The purpose of this document is to present cost information for the scope of work presented separately in the Technical Proposal. This document contains the following information:

- Section 1 – Cost Forms
- Section 2 – Present Worth Calculation
- Section 3 – Alternative Concepts and Value Engineering
- Section 4 – Cost and Performance Assurance

## Section 1 – Cost Forms (SP660)

This section contains the following cost forms:

- Cost Proposal Form A – Fixed Membrane System Price
- Cost Proposal Form B – Maximum Power Consumption
- Cost Proposal Form C – Maximum Chemical Usage
- Cost Proposal Form D – Anticipated Membrane Life and Guaranteed Membrane Replacement Cost

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## COST PROPOSAL FORM A FIXED MEMBRANE SYSTEM PRICE

Page 1 of 5

All prices are to be in U.S. Dollars.

Line #	Item	Cost (U.S. \$)
<b>1</b>	<b>Membranes and Equipment (Including Motors for Driven Equipment)</b>	
a	Membranes	\$ 10,218,000
b	Permeate System	\$ 1,811,400
c	Membrane Air Scour Blowers (Lone Star with Journal Bearings)	\$ 2,038,600
d	Balance of Membrane Air Scour System	\$ 2,307,700
e	RAS Pumping System	\$ 2,318,500
f	Membrane Chemical Feed and Cleaning Systems	\$ 172,900
g	Compressed Air/Entrained Air Removal/Priming System	\$ 158,600
h	Control System, Instrumentation, and Control Valves	\$ 881,600
i	Other Recommended Miscellaneous Equipment	\$ 134,800
j	All Remaining Equipment and Materials Furnished by the Membrane Supplier including 2 years of spare parts	\$ 1,216,400
<b>SUBTOTAL 1 (a + b + c + d + e + f + g + h + i + j)</b>		<b>\$ 21,258,500</b>
<b>2</b>	<b>Engineering, Startup, Training, and Warranty/Guarantee</b>	
k	Shop Drawings/Submittals	\$ 37,700
l	Factory Inspection and Testing	\$ 24,600
m	Construction Assistance	\$ 96,200
n	Training	\$ 11,700
o	Pre-Operational Checkout and Testing	\$ 25,400
p	Functional Testing	\$ 57,500
q	Start-Up Testing	\$ 57,500
r	Acceptance Testing	\$ 23,800
s	Membrane Warranty (10 year non-prorated) and Performance Guarantee	\$ 0
<b>SUBTOTAL 2 (k + l + m + n + o + p + q + r + s)</b>		<b>\$ 334,400</b>
<b>A1</b>	<b>Design Assistance Services (RFP Section 10.4.4 "Design Assistance")</b> Contract amount between Fulton County and MSS for Design Assistance Services phase	<b>\$ 74,100</b>
<b>A2</b>	<b>TOTAL FIXED MEMBRANE SYSTEM PRICE (Subtotal 1 + Subtotal 2)</b> Guaranteed membrane system price	<b>\$ 21,592,900</b>
<b>Total Membrane System Scope of Supply (A1 + A2)</b> Price used for Capital Cost Evaluation		<b>\$ 21,667,000</b>

## FIXED MEMBRANE SYSTEM PRICE GUARANTEE

The selected Membrane System Supplier shall guarantee their TOTAL FIXED MEMBRANE SYSTEM PRICE (Cost Proposal Form A, Line A2) for a period of at least 14 months. This fixed price shall be incorporated into the Owner's Guaranteed Maximum Price and the contract between the JV and Membrane System Supplier for Phase 2 of the Progressive Design Build Project.

I declare that I have examined this document and all attachments hereto, and agree to hold the Total Fixed Membrane System Price for a period 14 months.

On this 7 day of December, 2018

TOSHIIKO MOTOHORI 12/7/2018  
(Legal Name of Proponent) (Date)

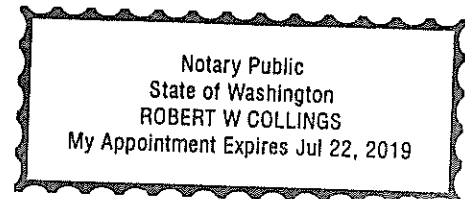
[Signature] 12/7/2018  
(Signature of Authorized Representative) (Date)

President  
(Title)

Sworn to and subscribed before me,

This 7<sup>th</sup> day of December, 2018

[Signature]  
(Notary Public) (Seal)



Commission Expires July 22, 2019  
(Date)

**Alternates**

The following items represent optional alternates. MSS shall provide a cost adder or deduct for each item – in the case of blower alternatives, provide cost for blowers and appurtenances to allow direct comparison of pricing for each option to the base option above - cost shall represent fully functional systems in each case, such that if any option is selected, the total price is covered in each case. The intent of the alternates and pricing required is to make clear the amount quoted to each MSS by the same suppliers. MSS shall circle whether each total represents an add or deduct relative to the final total above, and the amount proposed shall be the total net impact associated with the item relative to the final total above. All costs shall be reported in U.S. dollars. State and local sales and use taxes should be excluded, any other taxes, tariffs, and surcharges shall be included. Proposer shall provide a price for each alternate.

Alternate A

**BLOWER PRICE \$** 21,600,000

(Howden-Turblex scour air blowers with ceramic ball bearings)

Alternate B

**BLOWER PRICE \$** 21,861,000

(Next-Turbo scour air blowers with journal bearings)

Alternate C

**BLOWER PRICE \$** 21,534,000

(Next-Turbo scour air blowers with ceramic ball bearings)

Alternate D

**BLOWER PRICE \$** 21,760,000

(Howden-Turblex scour air blowers with journal bearings)

Alternate E

**ADD** **DEDUCT \$** 2,417,000

(316L SS permeate piping and accompanying alternate valves)

Alternate F

**ADD** **DEDUCT \$** 1,793,000

(304L SS permeate piping and accompanying alternate valves)

Alternate G

**ADD** **DEDUCT \$** Note 1

(HDPE permeate piping and accompanying alternate valves)

Alternate H

**ADD** **DEDUCT \$** 98,000

(304L SS air piping and accompanying valves)

Alternate I

(Alternate membrane unit connections, if proposed)

ADD DEDUCT \$ Note 2

Alternate J

(Beck actuators in lieu of standard electric actuators)

ADD DEDUCT \$ 119,000

Alternate K

(Base blowers sized to handle 10% spare membranes)

ADD DEDUCT \$ 38,000

## Notes:

- 1) KMU does not typically use HDPE piping. We are not offering this option here, but could work with the JV Team to provide a deduction if there is HDPE piping provided by others.
- 2) No alternate connections are offered.







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## COST PROPOSAL FORM B MAXIMUM POWER CONSUMPTION

GUARANTEED POWER CONSUMPTION			
Item	Condition	Power Consumption	
1. Membrane System Guaranteed Maximum Power Consumption at Startup	Annual Average 30.0 MGD	1,210 kWh/MG	6 MBR Basins Online
2. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		1,279 kWh/MG	
3. Membrane System Guaranteed Maximum Power Consumption at Startup	Max Month 38.0 MGD	1,022 kWh/MG	7 MBR Basins Online
4. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		1,085 kWh/MG	
5. Membrane System Guaranteed Maximum Power Consumption at Startup	Max Week 54.0 MGD	757 kWh/MG	8 MBR Basins Online
6. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		804 kWh/MG	
7. Membrane System Guaranteed Maximum Power Consumption at Startup	Peak Day 76 MGD	597 kWh/MG	9 MBR Basins Online
8. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		636 kWh/MG	

*Note: kWh/MG represents kilowatt-hours per million gallons of membrane permeate at the flow condition shown and at a permeate temperature of 20 degrees C.*

Equipment and systems specifically included in the stated maximum power consumption costs shall be listed below. The equipment listed and included in the total shall be the base bid equipment.

Energy use shown above is based on the anticipated power consumption for the MBR air scour blowers and RAS pumps.

Other systems provided by KMU including the CIP system and MBR tank drain will see infrequent use and are not anticipated to be a major contribution to the energy use.

Energy use assumes flow is processed at a constant rate. The MBR control strategy will be designed to take advantage of periods of low flow to "nap" a progressively higher number of MBR basins as flow decreases. This strategy is anticipated to yield an energy savings of approximately 10% or more for the numbers shown above at low flows.

Approximately 47% of power shown above (at ADF) to 37% at PDF is estimated for the RAS pumps. This power use assumed a TDH of 25 feet specified by the bid documents. In KMU's experience, this is a higher TDH than is required for most RAS systems. Operating the system with a TDH of 10 feet for the RAS system would reduce energy use by at ADF by approximately 25% from the figure shown above.

Combined, the two energy saving strategies suggested here (i.e., napping basins diurnally and reducing the TDH) could bring the energy use at startup for an ADF of 30 MGD to 760 kw-hr/MG. This is an energy saving target and not a guaranteed value as KMU can not control these factors.



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## COST PROPOSAL FORM C MAXIMUM CHEMICAL USAGE

GUARANTEED CHEMICAL USAGE			
Item	Chemical	Condition	Maximum Chemical Usage
1. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Hypchlorite	Annual Average 30.0 MGD	<u>3.64</u> Gallons/MG
2. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
3. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.45</u> Gallons/MG
4. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
5. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Hypchlorite	Max Month 38.0 MGD	<u>3.64</u> Gallons/MG
6. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
7. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.45</u> Gallons/MG
8. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
9. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Hypchlorite	Max Week 54.0 MGD	<u>3.64</u> Gallons/MG
10. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
11. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.45</u> Gallons/MG
12. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
13. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Hypchlorite	Peak Day 76 MGD	<u>3.64</u> Gallons/MG
14. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
15. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.45</u> Gallons/MG
16. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			

*Note: MG represents million gallons of membrane permeate at the flow condition shown and at a permeate temperature of 20 degrees C.*

Chemicals specifically included in the stated maximum chemical usages shall be listed below and shall correspond to the chemicals used in Technical Proposal Form A – if a third chemical is used, write-in corresponding information:

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The MBR system has been designed to meet the flow requirements given in the specification. KMU has assumed the following duration for flow events: PDF – 3 non-consecutive days/year; PWF – 3 non-consecutive weeks/year; MMF – 3 months per year; ADF remaining 251 days per year.

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The system will require a total of five cleaning events per year: four events for biological fouling which will consume a total of 44,775 gallons of 12.5% sodium hypochlorite; and one for mineral fouling which will consume a total of 5,600 gallons of 50% citric acid.

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For the purpose of calculating the use metric of gallons per million gallons, KMU has calculated the total volume of wastewater anticipated to be treated in one year (12.312 billion gallons) and divided the total chemical use by volume treated at each flow condition.

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Exceeding the flow conditions given above or operating the system outside of recommended procedures detailed in the system Operation and Maintenance manual may trigger additional cleaning events, which are not included in this guarantee.

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## COST PROPOSAL FORM D ANTICIPATED MEMBRANE LIFE AND GUARANTEED MEMBRANE REPLACEMENT COST

GUARANTEED MEMBRANE REPLACEMENT COST	
Item	Value
1. Guaranteed Small Membrane Subunit Replacement Cost (SMSRC) ("small membrane subunit" as defined in section 2.6, Part 1 of Technical Proposal Form A, and section 10.6.3 (10 year, CPI adjusted)	U.S. \$ <u>350.00</u>
2. Guaranteed Large Membrane Subunit Replacement Cost (LMSRC) ("large membrane subunit" as defined in section 2.6, Part 1 of Technical Proposal Form A, and section 10.6.3 (10 year, CPI adjusted)	U.S. \$ <u>11,750</u> (SEE NOTE 1)
3. Anticipated Membrane Life (for technical evaluation purposes)	<u>10</u> years
4. Maximum delivery time of replacement membrane units to Big Creek WRF, in days	Small subunit <u>90</u> Large subunit <u>90</u>

Provide any limitations to the Anticipated Membrane Life specific to membrane tank operating conditions and membrane cleaning conditions (maximum chemical concentration, high pH, low pH, chemical exposure duration, etc.).

The membrane system **must** be operated in accordance with the Operation and Maintenance manual to be provided by KMU during the project. Exceeding the recommended transmembrane pressure (TMP) or rate of air scour may damage the membranes.

Membranes should not be exposed to pH conditions outside of the recommended range (5 s.u. to 10 s.u.)

NOTE 1 - A "large membrane subunit" is defined by KMU in this bid as a cassette. Each SP660 SMU contains two cassettes. The price shown above is per cassette. The price per SMU is \$23,500.

## Section 2 –Present Worth Calculation (SP660)

The present worth of the proposed MBR system equipment was calculated using the procedures contained in Section 4.7 of the RFP.

1. The present worth of the RAS pumps (PWRASP) was calculated as \$2,198,078.
  - This is based on 8 duty pumps each running at 10,417 gpm (i.e., a 4Q recycle at 30 MGD), 25 feet of total dynamic head, and a pump efficiency of 70% based on the manufacturers stated performance of the selected pumps.
2. The present worth of backpulse pumps is \$0 as they are not required by Kubota system.
3. The present worth of air scour (PWCAS) was calculated as \$ 1,621,698.
  - This is based on six basins in operation to process the average day flow at a permeate temperature of 20C for a total of 264 SMUs in operation. The air scour rate of 76 scfm per SMU was used, along with the factor of 0.03 BHP/scfm given in Section 4.7 of the RFP.
4. The present worth of the air scour credit (PWCASC) was calculated as a (\$486,510) based on the factor of 30% given in the RFP.
5. The present worth of Hypochlorite (PWHYP) was calculated as \$260,240.
  - This is based on an annual hypochlorite use of 44,775 gallons and a unit price of \$0.79 per gallon of 12.5% sodium hypochlorite.
6. The present worth of citric acid (PWCA) was calculated as \$216,384.
  - This is based on an annual citric acid use of 5,600 gallons and a unit price of \$5.25 per gallon 50% citric acid.
7. The present worth of hydrochloric acid (PWHCL) is \$0 as it is not required for the Kubota system.
8. The present worth of recovery clean waste water (PWWWD) is \$0 as the Kubota system does not require recovery cleaning.
9. The present worth of Membrane Replacement was calculated as \$5,159,568.
  - This is based on a single membrane replacement at year 10. The system will have a total of 26,400 small membrane subunits (modules) [i.e., 60 modules per SMU and 440 total SMUs], and a cost of \$350 per module.

The total estimated present value is \$8,969,559 which is calculated as the sum of the nine items listed above.



## Section 3 - Alternative Concepts and Value Engineering

This section presents the costs associated with alternative concepts discussed in Section 8 of the technical proposal, as well as details on value engineering.

### 3.1 SP1000 Alternative Concept

Section 8 of our Technical Proposal outlines a proposed alternative concept to utilize the Kubota SP1000 at the Big Creek WRF. We have included a complete Cost Proposal form (Cost Proposal Form A) showing the capital cost savings associated with this option. We have also included a Maximum Power Consumption form (Cost Proposal Form B) that illustrates the potential energy savings. Guaranteed chemical use will remain unchanged from SP660 option. Finally, we have included a Anticipated Membrane Life and Guaranteed Membrane Replacement Cost form (Cost Proposal Form D) for the SP1000.

We believe the cost savings associated with SP1000 alternative including the reduced capital cost and anticipated savings in concrete costs due to the smaller membrane tanks, should be evaluated by the County and JV Team. We are excited to offer this opportunity and will gladly provide any additional information the County and the JV Team needs to evaluate it.

#### 3.1.1 Present Worth

The present worth of the proposed SP1000 alternative concept is calculated below using the same approach outlined in Section

1. The present worth of the RAS pumps (PWRASP) was calculated as \$2,198,078.
  - This is based on 8 duty pumps each running at 10,417 gpm (i.e., a 4Q recycle at 30 MGD), 25 feet of total dynamic head, and a pump efficiency of 70% based on the manufacturers stated performance of the selected pumps.
  - This remains unchanged from the SP660 alternative.
2. The present worth of backpulse pumps is \$0 as they are not required by Kubota system. This remains unchanged from the SP660 alternative.
3. The present worth of air scour (PWCAS) was calculated as \$ 1,207,545.
  - This is based on six basins in operation to process the average day flow at a permeate temperature of 20C for a total of 180 SMUs in operation. The air scour rate of 83 scfm per SMU was used, along with the factor of 0.03 BHP/scfm given in Section 4.7 of the RFP.
4. The present worth of the air scour credit (PWCASC) was calculated as a (\$362,264) based on the factor of 30% given in the RFP.
5. The present worth of Hypochlorite (PWHYP) was calculated as \$260,240.
  - This is based on an annual hypochlorite use of 44,775 gallons and a unit price of \$0.79 per gallon of 12.5% sodium hypochlorite.
  - This remains unchanged from the SP660 alternative.
6. The present worth of citric acid (PWCA) was calculated as \$216,384.

- This is based on an annual citric acid use of 5,600 gallons and a unit price of \$5.25 per gallon 50% citric acid.
  - This remains unchanged from the SP660 alternative.
7. The present worth of hydrochloric acid (PWHCL) is \$0 as it is not required for the Kubota system. This remains unchanged from the SP660 alternative.
  8. The present worth of recovery clean waste water (PWWWD) is \$0 as the Kubota system does not require recovery cleaning. This remains unchanged from the SP660 alternative.
  9. The present worth of Membrane Replacement was calculated as \$5,159,568.
    - This is based on a single membrane replacement at year 10. The system will have a total of 24,000 small membrane subunits (modules) [i.e., 80 modules per SMU and 300 total SMUs], and a cost of \$385 per module.

The total estimated present value is \$8,679,651 which is calculated as the sum of the nine items listed above.

### 3.2 Value Engineering

KMU is focused on providing high quality membrane projects at a low cost. We look forward to the opportunity to partner with the County and the JV Team in value engineering the project, finding ways to deliver the same high-quality system at a lower cost. KMU has encountered some opportunities for value engineering during preparation of the proposal detailed below.

- Membrane Cassette Support – As detailed in the Exceptions portion of the technical proposal, it is KMU's belief that 316L SS is only required for hollow fiber membranes. Kubota has thousands of installations around the world that rely on 304SS without incident. This is largely due to the fact that Kubota membranes use dilute chemicals dosed inside the membrane only. KMU has already incorporated this cost savings into the base bid and alternative concept. Should the County determine that 316SS is preferred, KMU can offer
  - The cost adder for 316 SS is is \$1,750 per SP660 SMU and \$2,100 per SP1000 SMU.
- Bond Costs – Performance and Payment bonds protect the County and the JV Team during construction, but come at a cost to suppliers. For this bid, we have assumed a 3-year bond duration as detailed in the Assumptions section of the Technical Proposal.
  - If the bond duration must be extended, the approximate cost would be on the order of 1% to 1.3% per year.
  - KMU would like to work with the JV Team and County identify a bond strategy that will protect the project at a lower cost and pass these savings on to the JV Team and the County. This could include provisions like a decreasing bond amount as equipment is delivered.



- Alternatively, KMU could offer a Letter of Credit in place of performance and payment bonds. This would allow KMU to issue a 3% price reduction to the JV Team.
- Our work with the blower vendors suggests there may be opportunities to reduce the costs of the blower packages.
  - Lone Star blower suggested that waiving the requirements for a copper bar rotor on motors could save in excess of \$10,000 per motor.
  - Next Turbo has suggested that fabricating the inlet filter silencer from galvanized steel could be a significant cost savings.
- We would like to work with suppliers of common equipment (valves, actuators, etc) to ensure we leverage the best possible pricing from vendors based on the amount of equipment to be purchased. Those savings would then be passed on to the client.



REVISED

# **COST PROPOSAL FORM A** **FIXED MEMBRANE SYSTEM PRICE**

SP1000 Alternative Concept

Page 1 of 5

All prices are to be in U.S. Dollars.

Line #	Item	Cost (U.S. \$)
<b>1</b>	<b>Membranes and Equipment (Including Motors for Driven Equipment)</b>	
a	Membranes	\$ 9,661,700
b	Permeate System	\$ 1,603,000
c	Membrane Air Scour Blowers (Lone Star with Journal Bearings)	\$ 2,044,400
d	Balance of Membrane Air Scour System	\$ 1,869,700
e	RAS Pumping System	\$ 2,325,200
f	Membrane Chemical Feed and Cleaning Systems	\$ 173,400
g	Compressed Air/Entrained Air Removal/Priming System	\$ 159,100
h	Control System, Instrumentation, and Control Valves	\$ 884,100
i	Other Recommended Miscellaneous Equipment	\$ 135,200
j	All Remaining Equipment and Materials Furnished by the Membrane Supplier including 2 years of spare parts	\$ 835,100
<b>SUBTOTAL 1 (a + b + c + d + e + f + g + h + i + j)</b>		<b>\$ 19,690,900</b>
<b>2</b>	<b>Engineering, Startup, Training, and Warranty/Guarantee</b>	
k	Shop Drawings/Submittals	\$ 37,800
l	Factory Inspection and Testing	\$ 24,700
m	Construction Assistance	\$ 96,500
n	Training	\$ 11,800
o	Pre-Operational Checkout and Testing	\$ 25,500
p	Functional Testing	\$ 57,600
q	Start-Up Testing	\$ 57,600
r	Acceptance Testing	\$ 23,900
s	Membrane Warranty (10 year non-prorated) and Performance Guarantee	\$ 0
<b>SUBTOTAL 2 (k + l + m + n + o + p + q + r + s)</b>		<b>\$ 335,400</b>
<b>A1</b>	<b>Design Assistance Services (RFP Section 10.4.4 "Design Assistance")</b> Contract amount between Fulton County and MSS for Design Assistance Services phase	<b>\$ 74,300</b>
<b>A2</b>	<b>TOTAL FIXED MEMBRANE SYSTEM PRICE (Subtotal 1 + Subtotal 2)</b> Guaranteed membrane system price	<b>\$ 20,026,300</b>
	<b>Total Membrane System Scope of Supply (A1 + A2)</b> Price used for Capital Cost Evaluation	<b>\$ 20,100,600</b>



REVISED

## COST PROPOSAL FORM B MAXIMUM POWER CONSUMPTION

### SP1000 Alternative Concept

GUARANTEED POWER CONSUMPTION			
Item	Condition	Power Consumption	
1. Membrane System Guaranteed Maximum Power Consumption at Startup	Annual Average 30.0 MGD	1,123 kWh/MG	6 MBR Basins Online
2. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		1,204 kWh/MG	
3. Membrane System Guaranteed Maximum Power Consumption at Startup	Max Month 38.0 MGD	944 kWh/MG	7 MBR Basins Online
4. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		1,015 kWh/MG	
5. Membrane System Guaranteed Maximum Power Consumption at Startup	Max Week 54.0 MGD	697 kWh/MG	8 MBR Basins Online
6. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		752 kWh/MG	
7. Membrane System Guaranteed Maximum Power Consumption at Startup	Peak Day 76 MGD	540 kWh/MG	9 MBR Basins Online
8. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		585 kWh/MG	

*Note: kWh/MG represents kilowatt-hours per million gallons of membrane permeate at the flow condition shown and at a permeate temperature of 20 degrees C.*

Equipment and systems specifically included in the stated maximum power consumption costs shall be listed below. The equipment listed and included in the total shall be the base bid equipment.

Energy use shown above is based on the anticipated power consumption for the MBR air scour blowers and RAS pumps

Other systems provided by KMU including the CIP system and MBR tank drain will see infrequent use and are not anticipated to be a major contribution to the energy use.

Energy use assumes flow is processed at a constant rate. The MBR control strategy will be designed to take advantage of periods of low flow to "nap" a progressively higher number of MBR basins as flow decreases. This strategy is anticipated to yield an energy savings of approximately 10% or more for the numbers shown above at low flows.

Approximately 47% of power shown above (at ADF) to 37% at PDF is estimated for the RAS pumps. This power use assumed a TDH of 25 feet specified by the bid documents. In KMU's experience, this is a higher TDH than is required for most RAS systems. Operating the system with a TDH of 10 feet for the RAS system would reduce energy use by at ADF by approximately 25% from the figure shown above.

Combined, the two energy saving strategies suggested here (i.e., napping basins diurnally and reducing the TDH) could bring the energy use at startup for an ADF of 30 MGD to 760 kw-hr/MG. This is an energy saving target and not a guaranteed value as KMU can not control these factors.

**SP1000 Alternative Concept**

**COST PROPOSAL FORM D  
ANTICIPATED MEMBRANE LIFE AND  
GUARANTEED MEMBRANE REPLACEMENT COST**

GUARANTEED MEMBRANE REPLACEMENT COST	
Item	Value
1. Guaranteed Small Membrane Subunit Replacement Cost (SMSRC) ("small membrane subunit" as defined in section 2.6, Part 1 of Technical Proposal Form A, and section 10.6.3 (10 year, CPI adjusted)	U.S. \$ <u>385</u>
2. Guaranteed Large Membrane Subunit Replacement Cost (LMSRC) ("large membrane subunit" as defined in section 2.6, Part 1 of Technical Proposal Form A, and section 10.6.3 (10 year, CPI adjusted)	U.S. \$ <u>14,850</u> (SEE NOTE 1)
3. Anticipated Membrane Life (for technical evaluation purposes)	<u>10</u> years
4. Maximum delivery time of replacement membrane units to Big Creek WRF, in days	Small subunit <u>90</u> Large subunit <u>90</u>

Provide any limitations to the Anticipated Membrane Life specific to membrane tank operating conditions and membrane cleaning conditions (maximum chemical concentration, high pH, low pH, chemical exposure duration, etc.).

The membrane system must be operated in accordance with the Operation and Maintenance manual to be provided by KMU during the project. Exceeding the recommended transmembrane pressure (TMP) or rate of air scour may damage the membranes.

Membranes should not be exposed to pH conditions outside of the recommended range (5 s.u. to 10 s.u.)

NOTE 1 - A "large membrane subunit" is defined by KMU in this bid as a cassette. Each SP660 SMU contains two cassettes. The price shown above is per cassette. The price per SMU is \$29,700.

# **EXHIBIT E**

**Not Applicable (N/A)**

# **EXHIBIT F**

## **Scope of Work and Technical Specifications**



## Exhibit F

### Scope of Work and Technical Specifications

#### SCOPE of WORK:

Furnish, start-up, test, train and warranty/ guarantee the **FLAT PLATE MEMBRANE SYSTEM** (also referred to as "Membrane System" herein) as complete and operational system with all necessary engineering and design, equipment, materials, services, appurtenances, accessories, assembly hardware, spare parts and related items in strict accordance with the Contract Documents, including, but not limited to, all plans, specifications, and addenda for the Big Creek WRF Expansion Phase 2B Project.

Scope of Work and responsibility includes but is not limited to the following Specification Sections:

#### **Specification Section 46 53 50 - Titled "Flat Plate Membrane System"**

All General Requirements and other related specification section clauses pertinent to the scope of work, supply of equipment, materials and/or services shall govern this order.

Note that Specification Section 46 53 50 and other specification sections refer variously to entities including "Flat Plate Membrane System Supplier", "FPMS Supplier", "Membrane System Supplier", "MSS", "manufacturer", etc. All such references shall mean the Contractor. Also note that Specification Section 46 53 50 and other specification sections refer "Design-Builder" which shall mean the PDB.

It is understood that this is a Design Build project. Unless otherwise noted and /or clarified, the Scope of Work of this Contract is based on the Contract Documents including, but not limited to, documents listed within this Exhibit F. Listed documents represent 100% design and have been issued "For Construction". The amount of this Contract includes costs to cover minor changes, as a result of changes required by Contractor, which can be reasonably expected in Design Build work unless the changes were caused by PDB's design change.

Included in the Contract Amount, Contractor **SHALL** furnish Payment and Performance Bonds.

#### SCOPE OF WORK CLARIFICATIONS (Inclusions):

1. Scope of Work provided by Kubota Membrane USA under this Contract is part of the overall Big Creek Water Reclamation Facility Expansion Project. The expansion is being delivered through a progressive design-build project by the Progressive Design-Builder, a joint venture team of Archer Western and Brown and Caldwell ("PDB"). County entered into a separate construction Phase 2B contract with the PDB for Project construction and engineering services during construction, and Installation of the equipment supplied by Kubota Membrane USA under this Contract. As part of

the Scope of Work under this contract Kubota Membrane USA is required to communicate and coordinate Work with the PDB throughout the project execution per guidelines outlined within this Contract.

### **Specifications**

Big Creek Water Reclamation Facility Phase 2B 100% Design Specifications – Issued for Construction – Dated February 22, 2021 (Volumes 1 thru 5)

### **Drawings**

Big Creek WRF Expansion – 100% Design – Issued for Construction - Dated March, 2021 (Volumes 1 thru 3)

### **NPDES Permit**

NPDES Permit No. GA0024333 – Dated June 26, 2017 (Attachment 1)

### **PROJECT SCHEDULE:**

Contractor shall proceed with Contractor's Work in accordance with the Overall Project Schedules (Exhibit G) as prepared and amended by PDB from time to time. Please note that Contractor Confirmation Test dates, and Substantial and Final Completion dates of this Contract between the County and Contractor are different from what is shown on the Overall Project Schedule enclosed in Exhibit G. Project Substantial Completion date of January 28, 2024 and Final Completion Date of October 28, 2024 shall be used for the benefit of this Contract. The County and the PDB with County approval and concurrence, shall have the right to direct the sequence and pace of Contractor's Work, including overtime, without monetary compensation to Contractor.

Delivery of Submittals, All Control Strategies for a complete system, shop drawings, certifications, design data, and product data shall be provided no later than the dates described below:

- Membrane Units: 1 week after Contract Execution
- Calculations (Section 46 53 50): 4 weeks after Contract Execution
- Blowers, Membrane Tank Drain Pumps: 4 weeks after Contract Execution
- Valves and Actuators, CIP Drain Pumps, RAS Pumps, and Chemical Pumps: 6 weeks after Contract Execution
- PLC's and Remote I/O Panels: 8 weeks after Contract Execution
- The other items: 8 weeks after Contract Execution

Preliminary Operations and Maintenance Manuals shall be provided no later than 4 weeks after approved submittals. Final Operations and Maintenance Manuals shall be provided no later than 60 days prior to equipment Start-Up and Testing activities.

Delivery of Major Pieces of Equipment and Services shall be provided as described below or in accordance with the Project Schedule, whichever is sooner:

- RAS Pumps: 40 weeks after approval
- RAS Piping and associated appurtenances: January 17, 2022
- Blowers: 38 weeks after approval
- Air Piping and associated appurtenances: April 2022 thru August 2022 (2 basins per month)
- Degas System: February 2022 thru March 2022

- Membrane Guide Pipes & Baffle Plates: February 2022 thru June 2022
- Permeate Piping and appurtenances: March 2022 thru July 2022 (2 basins per month)
- Membrane Tank Drain Equipment: June 6, 2022
- CIP Equipment: June 6, 2022
- PLC's and Remote I/O Panels: July'18 2022
- Membranes: May 2023 thru June 2023
- Misc. Equipment and appurtenances: As directed by PDB
- System Programming & Instrument Calibration: April 2023
- Pre-Operational Check Out & Testing: May 8, 2023 thru June 19, 2023
- Clean Water Operating/ Functional Test: September 27, 2023 thru October 25, 2023
- Operational Start-Up Testing: November 30, 2023 thru December 29, 2023 (30 days)
- Acceptance & Performance Testing: December 30, 2023 thru January 28, 2024 (30 days)
- Substantial Completion (Completion of Performance and Acceptance Testing): January 28, 2024
- Performance Guarantee Period: January 29, 2024 thru October 28, 2024
- Confirmation Test: September 28, 2024 thru October 28, 2024 (30 days)
- Final Completion: October 28, 2024

The County and/or the PDB with County approval and concurrence, reserve the right to change the dates above in order to accommodate the project schedule. There shall be no additional costs associated with equipment/material storage, escalation, or fees due to this change.

#### **PAYMENT SCHEDULE:**

The County shall make payments to contractor according to the following schedule (see Exhibit A - General Conditions for additional details):

- 10% Due Upon Approval of Complete Submittals
- 5% Due Upon Approval of Final O&M Manuals
- 70% Due Upon Delivered of Equipment and Materials. These will be paid based on prorated portion of equipment and material cost when arriving onsite.
- 10% Due Upon Completion of Functional Testing
- 5% Due Upon Completion of Acceptance Testing

Contractor shall provide a detailed schedule of values satisfactory to the PDB and the County within fifteen (15) days after the date of execution of this Agreement. Unless stated otherwise, the prices in the Agreement are in United States dollars.

#### **ADDITIONAL OPTIONAL SERVICES:**

At the project completion, the County may request annual support services including remote monitoring, operational assistance, and 24/7 call-in technical support and/or an extended service contract in which regular membrane system equipment maintenance and calibrations would be performed.

Attachment #2 includes costs for these services as proposed by Kubota Membrane USA.



## **START-UP AND TESTING**

Contractor shall provide support services as described in this section and Contract Documents. Most stringent requirement shall apply.

At a minimum Contractor shall provide the following quantity of on-site service days of a factory trained representative (not a sales representative), exclusive of travel time, as part of the scope of work associated with this Contract:

- Construction Assistance: Fifty (50) days
- Training: Ten (10) days
- Pre-Operational Checkout and Testing: Twenty (20) days
- Functional Testing: Fifty (50) days
- Start-Up Testing: Forty (40) days
- Acceptance & Performance Testing: Twenty-seven (27) days
- Confirmation Test: Thirty (30) days

The manufacturer shall remain present on-site during all field quality control tests and during the start up (Functional, Start-up Testing). Per the RFP requirements, the supplier shall be present for 27 days during the Acceptance Testing period (training to be repeated per 46 53 50 section 3.04 during this period. Project schedule allows for one test duration. Should the Contractor test duration exceed the duration originally established and outlined within the contract documents, and additional time will be required to perform the re-test, any costs associated with the additional on-site time due to extended/re-test durations should be borne by the Contractor in proportion to the Contractor's share of the responsibility for such extended/re-test durations.

Any additional service days that Contractor, or it's subcontractors, might need to spend on site in order to fulfil other Contractor obligations under this contract shall be in addition to durations listed above and will be provided by Contractor at no additional cost to the County.

County agrees that if the Contractor or any of its representatives must make an additional service trip due to the site conditions not being ready for installation check, start up, or training, it will compensate Contractor for the cost for additional travel expenses and will pay for additional labor at their published labor rates. Additionally, should County cancel an installation check, start up, or training trip with less than 48 hours' notice, the County will be liable for any additional travel costs and for unused labor at their published labor rates.

### **A) Construction Assistance**

During construction phase of the project Contractor shall provide field personnel who will coordinate unloading, inspect membrane system supplier supplied components, all required factory inspection and testing, calibrate field instruments within the membrane system, and observe installation of the membrane system by PDB.

### **B) Pre-Operational Checkout and Testing**

After the construction of the Membrane Facility equipment and processes, Contractor representatives shall perform all pre-operational testing and field calibrate all instrumentation

within the membrane system scope of supply in accordance with manufacturer recommended procedures. Instruments shall then be tested in compliance with ISA S51.1 and loop testing completed. Contractor representative(s) shall also complete the required equipment installation checkout forms, verifying the equipment is properly installed per manufacturer recommendations and is ready to be functionally tested.

### **C) Training**

**The Contractor shall provide a combination of classroom and field training to JV and Owner's personnel and operations representatives as required for a complete understanding of process, mechanical, electrical, and control system requirements. Initial training shall be completed prior to Functional Testing. The Contractor shall provide a minimum of ten (10) person days of onsite operator training, exclusive of travel time. Follow-up training of the same duration and meeting the same requirements shall be provided near the conclusion of the Acceptance Testing period.**

### **D) Clean Water Operating/ Functional Test**

Following successful completion of the pre-operational checkout and testing, Contractor shall coordinate with the PDB to perform functional testing of the membrane system components and shall provide onsite assistance. The proposed Functional Testing procedures shall be developed by the Contractor and shall be submitted to the PDB and the County and approved before scheduling and performing Functional Testing.

Equipment will be operated long enough to gather data on noise, temperature, vibration, and performance characteristics, and to make any initial adjustments deemed necessary to applicable controls. Contractor shall verify proper operation of all system components and operate all valves, controls, and other devices to ensure they are functional and ready for Start-up Testing. The Functional Testing shall demonstrate the effectiveness of system components and features including, but not necessarily limited to, the following:

1. Confirm specified performance of each pumping system, e.g., flow rate, total dynamic head, efficiency, alarm systems, vibration, noise, bearing temperatures, amperage, etc.
2. Confirm specified performance of all blowers and compressors, e.g., flow rate, discharge pressure, efficiency, alarm systems, vibration, noise, bearing temperatures, amperage, flow distribution, etc.
3. Confirm specified performance of each chemical feed system to deliver volumetric or mass flow rates of chemicals through the range of dosages likely to be needed for proper operation of the membrane system.
4. Functionality of membrane integrity test system.
5. Determination of temperature-corrected clean water permeability of each membrane tank.
6. Operation of all instrumentation.

7. A clean water flux test (CWFT) shall be performed by the Contractor during functional testing to confirm performance, and be used as a benchmark for future CWFT. Contractor shall provide onsite assistance for an additional CWFT one year after successful completion of acceptance testing.

Additionally, Contractor shall inspect the installed membrane system for correct operation, proper connection, and satisfactory function of all components. Contractor shall approve the installation and provide written certification that all components of the membrane system have been installed and are functioning properly and are ready for start-up testing.

In the event of a nonconforming system as determined by the PDB, advancement to Start-up Testing shall not commence until the Contractor has made, at no additional cost to the County, such adjustments and modifications as are necessary to correct the membrane system components, and has demonstrated this by repeating the Functional Testing until satisfactory.

#### **E) Operational Start-up Testing**

Following successful completion of the training, Functional Testing, and the submittal of all final shop drawings, O&M manuals, and PLC programs, Contractor and PDB, with County concurrence, shall conduct the Start-up Testing, the primary purpose of which is to test all of the membrane system components collectively to ensure that the system and all of its integral components function together as intended, including operation and functionality of the system in all automatic and manual modes, verification of all system interlocks and controls, and compliance with design performance requirements. Start-up testing shall not relieve any requirement of acceptance testing.

Contractor shall take the lead and responsibility to test the membrane system while assisting the PDB and the County with testing of all other equipment associated with the MBR treatment process. The County operations team shall be responsible for operating the plant and controlling solids retention time and maintaining design MLSS concentrations as described below after MLSS concentration has been initially established by the PDB. Contractor shall develop and receive approval from the PDB and the County of the proposed Start-up Testing protocol in advance, and provide onsite assistance for the full term of the start-up testing, exclusive of travel time. During this time, Contractor representative is to be onsite for a minimum of 8 hours per day and remain local on a 24-hour per day basis throughout.

During the Start-up Testing, Contractor shall continuously (24 hours/day, 7 days/week) oversee and provide direction to the County operations team who will operate the membrane system over the test period. During the test period Contractor shall collect and summarize operational data to demonstrate that the membrane system meets the Start-up Testing requirements. In all cases, compliance shall be determined for each calendar day, and to successfully pass the Start-up Testing, the membrane system must comply with requirements for each of the 30 days within the operational portion of the Start-up Testing period.

In order to facilitate the Start-up Testing, the BNR basins and RAS shall be operated in such a manner that the mixed liquor closely approximates the design characteristics. The target will be for the membrane tank MLSS to be 95 to 100 percent of the maximum month values specified. The 30-day average SRT target will be achieved within 5 percent of the values specified (varying

by season). BNR and chemical feed operation shall be sufficient for the permeate to meet the stipulated effluent total phosphorus concentration.

Once the targeted conditions have been met, the system shall be operated with an appropriate number of membrane tanks online to test those tanks at the design maximum month flux condition for 3 weeks, i.e. the average permeate flow rate shall be within 5 percent of the maximum month design flow per membrane tank (with one offline). At the conclusion of that 3-week period, the conditions, including number of trains being tested, shall be adjusted to test for six days at the design maximum week flux condition, i.e. the average permeate flow during that period shall be within 5 percent of the design maximum week flow per membrane tank (with one offline). For the 7th day of that week, conditions shall be adjusted to test at the design peak day flux condition for 24 hours, i.e. the permeate flow during that period shall be within 5 percent of the design peak day flow per membrane tank (with one offline) at all times. The number of membrane tanks tested at each condition shall be the maximum allowed by the available influent flows at the time of the testing. Additional membrane tanks may be online if necessary to handle some degree of additional flow, but would not be considered part of the Start-up Testing at the given test condition.

Key requirements to be successfully demonstrated in this testing include, but are not necessarily limited to, the following:

- Automatic and manual mode operation (testing of all modes)
- Proper system adjustment and control of air scour system flows.
- Performance of air separation system.
- Production Capacity: Membrane system meets flow rate requirements specified at the corresponding design net flux.
- Pressure Limitations: Membrane system operates within the TMP limits that are specified.
- Membrane Permeate Quality: Membrane permeate meets quality requirements specified
- Maintenance Clean: Perform a minimum of one maintenance clean – for systems requiring cleaning within the 30-day period. For systems in which cleaning is not anticipated within the 30-day period, complete a maintenance cleaning event in one membrane tank selected by the County at the conclusion of the 30-day period.
- Recovery Clean: Perform recovery clean operation at the end of the 30-day test period on one membrane tank selected by the County.
- Power Consumption: Membrane system power consumption shall be compared to the Guaranteed power consumption.
- Chemical Usage: Membrane system chemical usage shall be compared to the Guaranteed chemical usage.
- Control System: Verify that the membrane control system, SCADA, and network communications systems operate as intended. Check system interlocks and all monitoring and control functions and communication links, both at the local membrane system and remote workstation, and including monitoring and recovery of operating data. Coordinate with the main control infrastructure of the plant. Verify that automatic transfer to redundant or backup systems (i.e. during automatic switchover from normal power to emergency power) and back is functional. Check automatic shutoff and alarm for various failure modes for each membrane tank and for the entire membrane system. Any manual intervention to restart or to re-establish normal operation of the membrane system control system is considered a system failure.

Within 7 days of the completion of successful Start-up Testing, Contractor shall submit a Start-up Testing report.

Successful completion of the Start-up Testing will be defined as at least 30 continuous days of operation without a significant failure and demonstrating that the membrane system meets all Start-up Testing requirements specified. A significant failure of the membrane system is one that interrupts continual system operation meeting performance requirements. A significant failure for control systems shall be defined as any event that requires operator intervention to re-start or to re-establish normal system operation.

If the membrane system fails to complete the Start-up Test successfully, Contractor shall have the option of re-starting the test over a second 30-day period (at no additional cost to the County or PDB as Contractor shall bear all costs associated with retesting). If the membrane system fails to complete the Start-up Test successfully during a second test period, Contractor shall prepare a written plan for modifying the membrane system to meet all Start-up Test requirements as follows:

1. Contractor shall submit the written plan within 7 days after the second unsuccessful test period ends.
2. If the proposed modifications are deemed acceptable by the PDB and the County, the Contractor shall modify the membrane system within 30 days of receiving written approval. All modifications to the membrane system shall be completed at no cost to the County or the PDB.
3. After modifications are completed, the Contractor shall repeat the Start-up Test.
4. If, in the opinion of the County and PDB, the Contractor cannot modify or supplement its membrane system to meet the Start-up Test requirements specified herein and within the Contract Documents, at sole cost of the Contractor, the Contractor shall remove its membrane system and shall install an alternate system as required to meet the Start-up Test requirements at the sole cost of the Contractor. This requirement shall be secured through the Contractor Payment and Performance Bond.

During the Start-up Test, the PDB and the County shall all have the option of collecting samples for independent analyses to confirm measurements and analyses conducted by the Contractor. The County and the PDB shall have the option of witnessing all testing performed by the Contractor.

#### **F) Acceptance & Performance Testing**

Acceptance Testing shall follow successful completion of Start-up Testing. Contractor shall develop an Acceptance Testing plan in advance. The primary purpose of the Acceptance Testing is to verify data collected during the Start-Up testing and that the membrane system has been designed and constructed such that, while operating under design conditions, it meets all performance criteria. During Acceptance Testing compliance with the requirements for production capacity, flux, TMPs, membrane permeate quality, membrane cleaning frequency, power consumption, chemical usage, and percent of permeability recovery after cleanings shall be determined and confirmed.

County and/or PDB may elect that conditions for some portion of the Acceptance Testing period be manipulated as they were for selected membrane tanks during the Start-up Testing to simulate performance at conditions higher than those that would be present with all membrane tanks online at flow conditions present during the Acceptance Testing.

During the Acceptance Testing period, the County's operations team shall operate the WRF (including the membrane system) and the Contractor shall provide the following:

- Onsite assistance as necessary, or requested
- 24 hours/day, 7 days/week telephone support.
- Remote monitoring of the membrane system with proactive reporting on performance and trouble-shooting as required.

The Contractor shall be responsible for monitoring operating conditions and performance of the membrane system during the Acceptance Testing period, including power and chemical usage. The County and PDB may conduct their own monitoring and record keeping during this period. The Contractor shall summarize operating and performance data at the end of the Acceptance Testing period and prepare a written Acceptance Testing report within 30 days of testing completion summarizing the results to the County and the PDB.

The Acceptance Testing report shall include, but not necessarily be limited to, the following:

- A certification stating that testing was conducted in accordance with the approved Acceptance Testing plan.
- A certification stating that the results of the Acceptance Testing comply with the design and performance criteria.
- All required process parameters measured, recorded or calculated during the testing, including all laboratory analyses.
- All necessary certifications relating to testing, evaluation, analyses, and performance.
- Summary of test results and conclusive evidence of compliance with all requirements.
- Data and supporting calculations demonstrating the ability of the membrane system to meet the requirements of the Contract and Contract Documents. This should include a narrative description, tables and graphs of production capacity, TMP versus time, permeate quality, chemical usage, power consumption, maintenance clean and recovery clean frequency, and other parameters as needed to clearly document the performance of the membrane system and compliance with the performance requirements.
- Record of equipment and system outages, failures, repairs and preventative maintenance.
- Any other data reasonably requested by the County or PDB to be included in this report.

All provisions of the membrane system warranty specified herein and in Contract Documents are enforceable during the Acceptance Testing period. Failure to meet the system operational requirements during the Acceptance Testing period shall result in a remedy determined by Contractor and approved by the County and the PDB, and full completion of a second Acceptance Testing period. Contractor shall be responsible for all costs of retesting, including those of the County and the PDB.

## **SYSTEM GUARANTEES AND WARRANTIES**

### **A) Guaranteed Power Consumption Costs**

Contractor is required to fill out and return with the executed Contract the Power Usage Guaranteed Cost Form – enclosed as an Attachment 3.  
Power usage costs shall include RAS pumping, Air Scour, membrane chemical systems and drain system power costs.

**B) Guaranteed Chemical Usage Costs**

Contractor is required to fill out and return with the executed Contract the Chemical Usage Guaranteed Cost Form – enclosed as an Attachment 4.  
Chemical usage costs shall include membrane maintenance and cleaning costs.

**C) Anticipated Membrane Life and Guaranteed Membrane Replacement Cost**

Contractor Guarantees Membrane replacement costs and Membrane Life as stated within the enclosed Attachment 5 titled “Anticipated Membrane Life and Guaranteed Membrane Replacement Cost”. The Membrane System Supplier shall provide a full non-prorated warranty of all membranes for a 10 year period subject to the limitations per Item E below. In determining the costs to be incurred by the County, membranes replaced during the full warranty period of 10 years shall be 100% covered by the Contractor. That is, the Contractor shall bear 100% of the costs during the full coverage period of the warranty. Should the County elect to purchase additional membranes during or at the conclusion of the guaranteed replacement period, the guaranteed membrane replacement pricing shall apply.

The guaranteed membrane replacement costs shall be the value(s) provided, and shall be adjusted proportionally to the Consumer Price Index for All Urban Consumers (CPI-U), United States City Average, All Items, 1982-84=100, without seasonal adjustment. The baseline CPI-U shall be its value as of December 17, 2018 . Guaranteed membrane replacement costs shall be Freight on Board (FOB) Roswell, GA. In all cases, the County shall be allowed to purchase replacement, new, and/or additional membrane modules at the fair market value price if that price is less than the CPI-adjusted guaranteed maximum membrane module replacement price during the warranty period.

**D) Membrane Permeate Quality Requirement**

Flat Plate Membrane System shall meet applicable effluent requirements in the NPDES permit Part I, Sections B.2 for Big Creek Water Reclamation Facility. Contractor’s responsibility is limited to TSS and Turbidity. Contractor shall not be responsible for the membrane permeate quality related to the biological process.

In addition to the applicable effluent requirements in the NPDES permit, the membrane permeate shall meet the following requirements, applicable both to combined permeate and to the permeate from each membrane tank:

- TSS shall not exceed 2.5 mg/L in at least 95% of the samples and shall be less than or equal to 5 mg/L in any sample.
- The turbidity shall not exceed 0.2 NTU, based upon the running 95th percentile from continuous monitoring for any period of at least 30 calendar days.
- The maximum turbidity shall not exceed 0.5 NTU (one-hour running average) and shall continuously be less than 3.0 NTU.

#### **E) Membrane System Warranty**

Contractor shall provide warranty coverage as defined herein and within the Contract Documents. Most stringent requirement applies. All warranties shall cover both parts and labor unless specifically noted otherwise.

Contractor shall warrant that replacement parts shall continue to be available to the County for a minimum of 20 years from the Substantial Completion Date. Contractor shall warrant that, if Membrane Manufacturer or Membrane product line is sold, Contractor shall make provisions such that all guarantees, warranties, and bonds will remain in effect and that replacement parts and operational support will continue to be available to the County for the time period specified. Contractor shall make all repairs and replacements promptly upon receipt of written orders for the same from County. If within 10 days after County has notified Contractor of a failure/defect, Contractor has not started to make the necessary corrections, County is hereby authorized to make the corrections or to order the work to be done by a third party, and the costs of the corrections shall be paid by the Contractor.

Repetitive malfunction of membrane system material and equipment shall be cause for replacement and an extension of the applicable warranty period(s) for replaced material and equipment to match the term and conditions of the original warranty provided.

Contractor agrees to hold the Owner harmless from liability of any kind arising from direct damage due to defects in workmanship and materials during the specified warranty periods.

##### **a) Membrane System General Equipment Warranty**

Contractor shall provide warranty of membrane system, covering all elements within the membrane system scope of supply, for a minimum of one year from Substantial Completion Date. Contractor shall make all repairs or replacements necessitated by equipment failure within the warranty period at no cost to the County.

##### **b) Membrane System Extended Warranty for Selected Equipment**

Contractor shall provide an extended warranty to cover all pneumatically actuated valves, pneumatic actuators, and any valves or accessories that are started or actuated more than once per hour, for a minimum period of three years from Substantial Completion Date, or the original equipment manufacturers standard warranty, whichever is longer.



In the case of warranty periods longer than one year being specified in the technical specification sections that cover Membrane System equipment and/ or components, provide warranties meeting the requirements of those specification sections.

Contractor shall make all repairs or replacements necessitated by equipment failure within the warranty period at no cost to the County.

**c) Membrane Warranty**

Integrity of the membranes shall be guaranteed by the Contractor for 10 years after Substantial Completion of the membrane system with a warranty against all defects in workmanship and materials.

Warranty shall be limited to parts and labor for all necessary repairs within the warranty period provided repairs are made within 60 days after the Contractor is notified of a defect.

Following a failure during the warranty period, Contractor shall deliver to the project site replacement membranes for the failed membrane modules within thirty (30) calendar days of receiving notice of a failure. The replacement membrane modules shall be the latest generation membrane modules offered by the Contractor, if compatible with the existing system.

Costs for replacement of membranes shall include materials, taxes, transit insurance, freight, and any other costs incurred with membrane replacement, plus a minimum of one qualified technician to ensure proper installation. Replacement modules will carry the residual warranty issued with the original equipment modules.

All Warranty claims shall be made in writing within thirty (30) days of identifying a membrane failure and shall present a detailed analysis of the system and individual membrane subunit (if available based on sampling arrangements designed by Contractor) data showing the performance deficiency, and must include: the serial number(s) of the membrane subunit(s) involved and system operating data, defect in materials or workmanship, or other failure upon which the claim is based. If requested by the County, Contractor shall replace all of the failing membrane modules in the membrane tank which experienced the failure. Membrane replacement shall be completed within 90 days of the failure notification. In addition, if the remedy for failure includes installation of some portion of the spare membrane capacity, Contractor shall be responsible for all associated costs, including provision of blowers and any other ancillary items necessary to support said measures.

**d) Warranty Exclusions and Membrane Failure Criteria**

Occurrence of any of the following shall void the warranties described in this section:

1. Physical abuse or misuse of membranes
2. Faulty installation of membranes
3. Unauthorized alteration of any parts originally supplied by the Contractor relating to the membrane system

4. Failure strictly and exclusively to adhere to the Contractor specified membrane cleaning procedures, including the use of anything other than the Contractor approved membrane cleaning agents
5. Failure to adhere to the Contractor-approved maintenance program
6. Failure to maintain and provide operating records. The County is responsible for maintaining plant operating records from the initial start-up date until a warranty claim is made, and these records shall be available for review upon request. Such documentation shall include operating data including regular information on: flow, transmembrane pressure, contractually specified mixed liquor quality parameters and temperature, and elapsed time since start-up(days) in order to: a) verify uninterrupted compliance with guidelines; and b) establish liability for membranes replaced under warranty. County must measure and maintain records to establish that the membranes have been operated in accordance with such guidelines, failing which all warranties and rights of the customer shall be null and void.

As an exception to above conditions, County may exceed membrane basin MLSS concentration of 13,000 mg/L in order to address plant operational conditions without voiding the warranty. It is understood that operating at an MLSS above 13,000 mg/l may increase the rate of fouling (i.e. requiring cleaning more frequently than normal) and increase risk of sludging.

Provided that the membrane system has been operated and maintained within ranges of the design criteria listed within the Design Documents and the Contractor recommendations provided within the O&M manuals, membrane failure is defined as meeting any one of the following conditions during the warranty period:

- Failure to meet any of the additional criteria listed in the above section titled "Membrane Permeate Quality Requirement" for any of the membrane tanks.
- Failure to provide the required flux (and capacity) at a condition up to and including peak flow at minimum design temperature earlier than the proposed end of membrane life without having to exceed the chemical and/or manual cleaning recommendations/ guarantees and/ or exceeding the required TMP limits for flux and cleaning.

Failure or lack thereof shall be demonstrated within the membrane system, not through shipment of membrane modules for offsite analysis. If the Contractor is unable to correct the failure condition through repair and membrane replacement, adding additional membrane modules, or increasing the membrane cleaning frequency, then the Contractor shall be responsible for all costs associated with complete removal of the non-conforming membrane system and for all costs associated with subsequent installation of an alternate system that meets the performance requirements.

#### **F) Membrane System Performance Guarantee**

Contractor shall guarantee the performance of the membrane system to meet the specified effluent parameters as outlined in "Membrane Permeate Quality Requirement" section at the maximum design flux specified. Contractor shall also guarantee the operating variables (maximum power use, maximum chemical cleaning, operating TMP, etc.).

### **a) Performance Guarantee Requirements**

Performance guarantee testing will occur initially during the Clean Water Operating/ Functional Test and continue through Operational Testing and Acceptance Testing Periods, and conclude with a confirmation test (a repeat of the Start-Up test) after a period of 8 months following initial Start-up. During all of these periods, data collected will be utilized to confirm actual parameters meet the guaranteed membrane system performance parameters.

During the testing period PDB and Contractor will collect routine operating data for the Membrane System to calculate actual electrical power and chemical consumption values of the Membrane System. Contractor is required to demonstrate that the total monthly consumption values for power and chemicals are equal to or less than the total of the values provided on the Guaranteed Power and Chemical Consumption Cost forms.

Failure of the Contractor to demonstrate that the actual monthly consumption values are equal or less than the values provided on the Guaranteed Power and Chemical Consumption Cost forms will result in the County deducting from the final payment (via deduction from retainage withheld prior to accessing the performance bond) to Contractor a sum equal to 24 times the cost of the positive variance for operational cost from the invoice submitted by the Contractor to the County. Contractor may demonstrate actual operational consumption values during any one-month period of the testing phase. If Guaranteed Power and Chemical Consumption Values cannot be demonstrated by the end of the testing phase, then the lowest operational value for any single month shall be used to calculate the total operating cost. Both values of power and chemical consumption substantiation must come from the same month. If variance is positive, then 24 times the cost (at the unit cost for power and chemicals at the time of the analysis) of variance in values will be deducted from the next invoice (via deduction from retainage withheld prior to accessing the performance bond) submitted by the Contractor. For additional details please reference Section 18.5 of the Big Creek WRF Expansion RFP No.17RFP031617K-DJ as it pertains to Contractor Scope (Attachment 6). If variance is zero or negative the Contractor has demonstrated operational values stated in Guaranteed Power and Chemical Consumption costs are met.

The Contractor shall be responsible for compiling data showing compliance with the performance guarantee requirements in coordination with the PDB and County, including data such as membrane system power usage, membrane related chemical usage, etc. The Contractor shall submit a report to the County and PDB at the midpoint and conclusion of the performance guarantee period clearly demonstrating how the requirements were met.

Performance showing the ability of the membrane system to meet specified requirements shall be based upon meeting the key performance objectives presented in Contract Documents, "Membrane Permeate Quality Requirement" section of this Exhibit F and the Guaranteed Power and Chemical Consumption Usage and Cost Forms.

- Turbidity will be continuously measured by the inline turbidity meters. TSS samples will be collected and analyzed by the County.
- Production performance shall be based on achievement of the required filtrate production through the membranes at the maximum design flux, verified by the County and PDB during the performance guarantee period. Membrane operating TMP must remain within the range specified. Recovery cleaning and maintenance cleaning intervals and chemical usages shall be no greater

than the guaranteed maximum values, and shall result in restoration of the TMP values within the design parameters.

If at any time during the performance guarantee period the membrane system is not able to meet the performance guarantee requirements, the Contractor shall, at no cost to the County or PDB, repair, replace, or add membrane modules and add or replace associated ancillary equipment in order to meet the specified performance. Installation shall be at Contractor expense.

- Within seven (7) calendar days of notification by the PDB or County of unsatisfactory performance of the membrane system, the Contractor shall take the necessary actions to maintain compliance with the membrane system performance requirements and guarantees.

The performance guarantee shall be subject to the same exclusions as the warranties as, with the exception that as described above, the Contractor is primarily responsible for compiling the operating data.

#### **b) Performance Guarantee Period Services**

Performance guarantee services shall be provided starting concurrently with performance guarantee commencement and continue through the performance guarantee period. The services shall include:

- Monitoring of the membrane performance and performance reports (weekly for first six months, and then every two weeks) highlighting concerns and suggestions for improvement.
- Two onsite visits (minimum of two (2) days, 8 hours each, onsite during each visit, exclusive of travel time). Visits shall include observation of operations, assessment of membrane equipment, and supplemental training of personnel. Contractor representative shall be an engineer or startup technician; a routine maintenance technician is not acceptable. Contractor representative's resume shall be submitted for approval by the PDB and County prior to scheduling visits.
- Each onsite visit shall include membrane material analysis of at least ten samples from ten separate membrane cassettes/racks. The analysis is not required to be destructive, but shall be determined by the Contractor as tests that are indicative of membrane life and gradual loss of effectiveness.
- 24/7 continuous telephone and PLC code support.
- Report to the PDB and County at the midpoint and conclusion of the performance guarantee period clearly demonstrating how the requirements were met.

# **EXHIBIT G**

**Project Schedule**

**See Exhibit F**

# **EXHIBIT H**

## **Purchasing Forms**

STATE OF GEORGIA  
COUNTY OF FULTON

FORM A: GEORGIA SECURITY AND IMMIGRATION CONTRACTOR AFFIDAVIT AND  
AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services<sup>1</sup> under a contract with [insert name of prime contractor] Kubota Membrane USA Corporation on behalf of Fulton County Government has registered with and is participating in a federal work authorization program\*,<sup>2</sup> in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services to this contract with Fulton County Government, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A. 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the Fulton County Government at the time the subcontractor(s) is retained to perform such service.

JYUM1247

EEV/Basic Pilot Program\* User Identification Number

BY: [Signature] Authorized Officer of Agent (Insert Contractor Name)

President

Title of Authorized Officer or Agent of Contractor

Toshihiko Motohori

Printed Name of Authorized Officer or Agent

Sworn to and subscribed before me this 7<sup>th</sup> day of December, 2018

Notary Public: [Signature]

County: Snohomish - WA

Commission Expires: July 22, 2019

Notary Public  
State of Washington  
ROBERT W COLLINGS  
My Appointment Expires Jul 22, 2019

<sup>1</sup>O.C.G.A. § 13-10-90(4), as amended by Senate Bill 160, provides that "physical performance of services" means any performance of labor or services for a public employer (e.g., Fulton County) using a bidding process (e.g., ITB, RFQ, RFP, etc.) or contract wherein the labor or services exceed \$2,499.99, except for those individuals licensed pursuant to title 26 or Title 43 or by the State Bar of Georgia and is in good standing when such contract is for service to be rendered by such individual.

<sup>2</sup>\*[Any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603].

STATE OF GEORGIA  
COUNTY OF FULTON

FORM B: GEORGIA SECURITY AND IMMIGRATION SUBCONTRACTOR AFFIDAVIT

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services<sup>3</sup> under a contract with [insert name of prime contractor] Kubota behalf of Fulton County Government has registered with and is participating in a federal work authorization program<sup>4</sup>, in accordance with the applicability provisions and deadlines established in O.C.G.A. 13-10-91.

98676 (Program Start Date: Feb. 8, 2008)

EEV/Basic Pilot Program\* User Identification Number

MR Systems, Inc.

BY: Authorized Officer of Agent  
(Insert Subcontractor Name)

Secretary & Treasurer

Title of Authorized Officer or Agent of Subcontractor

Thomas H. Hopkins, Jr.

Printed Name of Authorized Officer or Agent

Sworn to and subscribed before me this 11 day of December, 2018

Notary Public:

Rita E. Barrows

County:

Commission Expires:

**Rita E. Barrows**  
**NOTARY PUBLIC**  
**Gwinnett County, GEORGIA**  
My Commission Expires August **25**, 2019

<sup>3</sup>O.C.G.A. § 13-10-90(4), as amended by Senate Bill 160, provides that "physical performance of services" means any performance of labor or services for a public employer (e.g., Fulton County) using a bidding process (e.g., ITB, RFQ, RFP, etc.) or contract wherein the labor or services exceed \$2,499.99, except for those individuals licensed pursuant to title 26 or Title 43 or by the State Bar of Georgia and is in good standing when such contract is for service to be rendered by such individual.

<sup>4</sup>\*\*[Any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA), P.L. 99-603].



**FORM C: OFFEROR'S DISCLOSURE FORM AND QUESTIONNAIRE**

1. Please provide the names and business addresses of each of the Offeror's firm's officers and directors.

For the purposes of this form, the term "Offeror" means an entity that responds to a solicitation for a County contract by either submitting a proposal in response to a Request for Proposal or a Request for Qualification or a Bid in response to an Invitation to Bid. Describe accurately, fully and completely, their respective relationships with said Offeror, including their ownership interests and their anticipated role in the management and operations of said Offeror.

Kubota Membrane USA Corporation  
 Toshihiko Motohori - President  
 Hiroo Kuge - Vice President  
 11807 North Creek Parkway South  
 Suite B-109  
 Bothell, WA 98011

2. Please describe the general development of said Offeror's business during the past five (5) years, or such shorter period of time that said Offeror has been in business.  
 Kubota Membrane USA Corporation (KMU) was founded in 2003 to operate as an equipment supplier for Kubota Submerged Membrane Units (SMUs) for the North American market. KMU operated in an exclusive Partnership with Enviroquip (later becoming Ovivo) as the system supplier. In 2012, KMU began business as an independant membrane system supplier. The KMU system supply business has grown rapidly over the last five years, and is on track to exceed \$18M in revenue for the 2018. KMU continues to provide support to the approximately 400 Kubota SMU installations in the US. This include technical support for all installations that were in progress during the partnership with Ovivo such as the 42 MGD Canton, OH plant. In 2016, KMU opened a research and development center in Canton, OH to better support the North American Markert.
3. Please state whether any employee, agent or representative of said Offeror who is or will be directly involved in the subject project has or had within the last five (5) years: (i) directly or indirectly had a business relationship with Fulton County; (ii) directly or indirectly received revenues from Fulton County; or (iii) directly or indirectly receives revenues from the result of conducting business on Fulton County property or pursuant to any contract with Fulton County. Please describe in detail any such relationship.

No employee, of the Kubota Membrane USA has any relationship with Fulton County as described above. KMU's local representative, Pump and Process Equipment supplies new equipment and repairs to Fulton County for brands including KSB, Netzch, Danfoss, and Control Panels for a variety of projects through establish procurement channels.

**LITIGATION DISCLOSURE:**

Failure to fully and truthfully disclose the information required, may result in the disqualification of your bid or proposal from consideration or termination of the Contract, once awarded.

1. Please state whether any of the following events have occurred in the last five (5) years with respect to said Offeror. If any answer is yes, explain fully the following:

- (a) whether a petition under the federal bankruptcy laws or state insolvency laws was filed by or against said Offeror, or a receiver fiscal agent or similar officer was appointed by a court for the business or property of said Offeror;

Circle One: YES

NO

- (b) whether Offeror was subject of any order, judgment, or decree not subsequently reversed, suspended or vacated by any court of competent jurisdiction, permanently enjoining said Offeror from engaging in any type of business practice, or otherwise eliminating any type of business practice; and

Circle One: YES

NO

- (c) whether said Offeror's business was the subject of any civil or criminal proceeding in which there was a final adjudication adverse to said Offeror, which directly arose from activities conducted by the business unit or corporate division of said Offeror which submitted a bid or proposal for the subject project. If so please explain.

Circle One: YES

NO

2. Have you or any member of your firm or team to be assigned to this engagement ever been indicted or convicted of a criminal offense within the last five (5) years?

Circle One: YES

NO

3. Have you or any member of your firm or team been terminated (for cause or otherwise) from any work being performed for Fulton County or any other Federal, State or Local Government?

Circle One: YES

NO

4. Have you or any member of your firm or team been involved in any claim or litigation adverse to Fulton County or any other federal, state or local government, or private entity during the last three (3) years?

Circle One:

YES

NO

5. Has any Offeror, member of Offeror's team, or officer of any of them (with respect to any matter involving the business practices or activities of his or her employer), been notified within the five (5) years preceding the date of this offer that any of them are the target of a criminal investigation, grand jury investigation, or civil enforcement proceeding?

Circle One:

YES

NO

If you have answered "YES" to any of the above questions, please indicate the name(s) of the person(s), the nature, and the status and/or outcome of the information, indictment, conviction, termination, claim or litigation, the name of the court and the file or reference number of the case, as applicable. Any such information should be provided on a separate page, attached to this form and submitted with your proposal.

**NOTE:** If any response to any question set forth in this questionnaire has been disclosed in any other document, a response may be made by attaching a copy of such disclosure. (For example, said Offeror's most recent filings with the Securities and Exchange Commission ("SEC") may be provided if they are responsive to certain items within the questionnaire.) However, for purposes of clarity, Offeror should correlate its responses with the exhibits by identifying the exhibit and its relevant text.

Disclosures must specifically address, completely respond and comply with all information requested and fully answer all questions requested by Fulton County. Such disclosure must be submitted at the time of the bid or proposal submission and included as a part of the bid/proposal submitted for this project. Disclosure is required for Offerors, joint venture partners and first-tier subcontractors.

Failure to provide required disclosure, submit officially signed and notarized documents or respond to any and all information requested/required by Fulton County can result in the bid/proposal declared as non-responsive. This document must be completed and included as a part of the bid/proposal package along with other required documents.

[SIGNATURES ON NEXT PAGE]



Under penalty of perjury, I declare that I have examined this questionnaire and all attachments hereto, if applicable, to the best of my knowledge and belief, and all statements contained hereto are true, correct, and complete.

On this 7 day of December, 2018

Toshihiko Motohori 12/7/2018  
(Legal Name of Proponent) (Date)

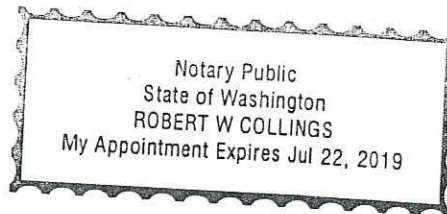
[Signature] 12/7/2018  
(Signature of Authorized Representative) (Date)

President  
(Title)

Sworn to and subscribed before me,

This 7<sup>th</sup> day of December, 2018

[Signature]  
(Notary Public) (Seal)



Commission Expires July 22, 2019  
(Date)

**For Earth, For Life**  
Kubota

PURCHASING FORM D – GEORGIA PROFESSIONAL  
LICENSURE CERTIFICATION

(Not applicable and not included here)

**For Earth, For Life**  
Kubota

PURCHASING FORM E — LOCAL PREFERENCE  
AFFIDAVIT OF BIDDER/OFFEROR

(KMU is not claiming local preference and this form is not  
included)

**For Earth, For Life**  
Kubota

PURCHASING FORM F – SERVICE DISABLED  
VETERAN PREFERENCE AFFIDAVIT OF  
BIDDER/OFFEROR

(KMU is not claiming preference as a service disabled veteran  
and this Form is not included)

# **EXHIBIT I**

## **Office of Contract Compliance Forms**



## EXHIBIT A – PROMISE OF NON-DISCRIMINATION

"Know all persons by these presents, that I/We ( Toshihiko Motorhori ),  
Name

President

Title

Kubota Membrane USA Corporation

Firm Name

Hereinafter "Company", in consideration of the privilege to bid on or obtain contracts funded, in whole or in part, by Fulton County, hereby consent, covenant and agree as follows:

- 1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin or gender in connection with any bid submitted to Fulton County for the performance of any resulting there from,
- 2) That it is and shall be the policy of this Company to provide equal opportunity to all businesses seeking to contract or otherwise interested in contracting with this Company without regard to the race, color, gender or national origin of the ownership of this business,
- 3) That the promises of non-discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption,
- 4) That the promise of non-discrimination as made and set forth herein shall be made a part of, and incorporated by reference into, any contract or portion thereof which this Company may hereafter obtain,
- 5) That the failure of this Company to satisfactorily discharge any of the promises of non-discrimination as made and set forth herein shall constitute a material breach of contract entitling the Board to declare the contract in default and to exercise any and all applicable rights and remedies, including but not limited to cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and/or forfeiture of compensation due and owing on a contract; and
- 6) That the bidder shall provide such information as may be required by the Director of Purchasing & Contract Compliance pursuant to Section 102.436 of the Fulton County Non-Discrimination in Purchasing and Contracting Policy.

NAME: Toshihiko Motohori TITLE: President

SIGNATURE: 

ADDRESS: 11807 North Creek Parkway South, Suite B-109  
Bothell, WA 98011

PHONE NUMBER: 425-898-2858 x 101 EMAIL: toshihiko.motohori@kubota.com

**For Earth, For Life**  
Kubota

## EXHIBIT C – SCHEDULE OF INTENDED SUBCONTRACTOR UTILIZATION

**EXHIBIT C - SCHEDULE OF INTENDED SUBCONTRACTOR UTILIZATION**

If the bidder/proposer intends to subcontract any portion of this scope of work/service(s), this form must be completed and submitted with the bid/proposal. All prime bidders/proposers must submit Letter(s) of Intent (Exhibit D) for all subcontractors who will be utilized under the scope of work/services prior to contract execution.

Prime Bidder/Proposer Company Name Kubota Membrane USA Corporation

ITB/RFP Name & Number: 18RFP1032018K-DJ

- My firm, as Prime Bidder/Proposer on this scope of work/service(s) is ☐, is not ☒ a minority or female owned and controlled business enterprise. (Please indicate below the portion of work, including, percentage of bid/proposal amount that your firm will carry out directly):  
\$ \_\_\_\_\_ or 42 %
- This highlighted information below must be completed and submitted with the bid/proposal if a **joint venture (JV)** approach is to be undertaken. Please provide JV breakdown information below and attach a copy of the executed Joint Venture Agreement.

JV Partner(s) information:

Business Name	Business Name	Business Name
% of JV _____	% of JV _____	% of JV _____
Ethnicity _____	Ethnicity _____	Ethnicity _____
Gender _____	Gender _____	Gender _____
Phone# _____	Phone# _____	Phone# _____

- Sub-Contractors (including suppliers) to be utilized in the performance of this scope of work/service(s), if awarded, are:

SUBCONTRACTOR NAME: Beckworth and Kuffel - Goulds Pump Supplier

ADDRESS: 1313 S. 96th Street, Seattle WA 98108

PHONE: 800-767-6700

CONTACT PERSON: Mark Romero

ETHNIC GROUP\*: N/A COUNTY CERTIFIED\*\* N/A

WORK TO BE PERFORMED: Supply of pumps

DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: 10 %

\*Ethnic Groups: African American (AABE); Asian American (ABE); Hispanic American (HBE); Native American (NABE); White Female American (WFBE); \*\*If yes, please attach copy of recent certification.

SUBCONTRACTOR NAME: Lonestar Blowers  
 ADDRESS: 1100 Louisiana Street, Houston, TX 77587  
 PHONE: 832 - 532 - 3112  
 CONTACT PERSON: James Cook  
 ETHNIC GROUP\*: N/A COUNTY CERTIFIED\*\* N/A  
 WORK TO BE PERFORMED: Supply of Blowers  
 DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: 10 %

SUBCONTRACTOR NAME: MR Systems  
 ADDRESS: 85 Beaver Run Road, Suite A, Norcross, GA 30093  
 PHONE: 678-325-2829  
 CONTACT PERSON: Tom Hopkins  
 ETHNIC GROUP\*: N/A COUNTY CERTIFIED\*\* N/A  
 WORK TO BE PERFORMED: Controls Engineering  
 DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: 2 %

SUBCONTRACTOR NAME: Therma-tron-X  
 ADDRESS: 1155 South Neenah Ave, Sturgeon Bay, WI 54235  
 PHONE: 920-743-6568  
 CONTACT PERSON: Rob Rock  
 ETHNIC GROUP\*: N/A COUNTY CERTIFIED\*\* N/A  
 WORK TO BE PERFORMED: Supplying stainless steel pipe and structural members  
 DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: 6 %

SUBCONTRACTOR NAME: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 CONTACT PERSON: \_\_\_\_\_  
 ETHNIC GROUP\*: \_\_\_\_\_ COUNTY CERTIFIED\*\* \_\_\_\_\_  
 WORK TO BE PERFORMED: \_\_\_\_\_  
 DOLLAR VALUE OF WORK: \$ \_\_\_\_\_ PERCENTAGE VALUE: \_\_\_\_\_ %

\*Ethnic Groups: African American (AABE); Asian American (ABE); Hispanic American (HBE); Native American (NABE); White Female American (WFBE); \*\*If yes, please attach copy of recent certification.



Total Dollar Value of Subcontractor Agreements: (\$)
--

Total Percentage of Subcontractor Value: (%)	48
--	----

**CERTIFICATION:** The undersigned certifies that he/she has read, understands and agrees to be bound by the Bid/Proposer provisions, including the accompanying Exhibits and other terms and conditions regarding sub-contractor utilization. The undersigned further certifies that he/she is legally authorized by the Bidder/Proposer to make the statement and representation in this Exhibit and that said statements and representations are true and correct to the best of his/her knowledge and belief. The undersigned understands and agrees that if any of the statements and representations are made by the Bidder/Proposer knowing them to be false, or if there is a failure of the intentions, objectives and commitments set forth herein without prior approval of the County, then in any such event the Contractor's acts or failure to act, as the case may be, shall constitute a material breach of the contract, entitling the County to terminate the Contract for default. The right to so terminate shall be in addition to, and in lieu of, any other rights and remedies the County may have for other defaults under the contract.

Signature:  Title: President

Business or Corporate Name: Kubota Membrane USA Corporation

Address: 11807 North Creek Parkway South, Suite B-109  
Bothell, WA 98011

Telephone: (4 2 5) 8 9 8 - 2 8 5 8 x 1 0 1

Fax Number: (4 2 5) 8 9 8 - 2 8 5 3

Email Address: Toshihiko.Motohori@kubota.com

# **EXHIBIT J**

## **Risk Management Insurance Provisions Forms**



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

04/14/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> <b>Ogishima &amp; Associates</b> 2535 Beacon Ave. S. Seattle, WA 98144	<b>206-328-1806</b> <b>CONTACT NAME:</b> Hitoshi Suwa <b>PHONE (A/C, No, Ext):</b> 206-328-1806 <b>FAX (A/C, No):</b> 206-322-1941 <b>E-MAIL ADDRESS:</b> suwa@ogishima.com
INSURER(S) AFFORDING COVERAGE	
INSURER A : <b>Sompo America Ins Co</b>	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

<b>COVERAGES</b>	<b>CERTIFICATE NUMBER:</b>	<b>REVISION NUMBER:</b>
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THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
<b>A</b>	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> <b>CG0001 0413</b> GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	<b>X</b>	<b>X</b>	<b>CPM40611L0</b>	<b>04/15/2021</b>	<b>04/15/2022</b>	EACH OCCURRENCE \$ <b>1,000,000</b> DAMAGE TO RENTED PREMISES (Ea occurrence) \$ <b>100,000</b> MED EXP (Any one person) \$ <b>5,000</b> PERSONAL & ADV INJURY \$ <b>1,000,000</b> GENERAL AGGREGATE \$ <b>2,000,000</b> PRODUCTS - COMP/OP AGG \$ <b>2,000,000</b> \$
<b>A</b>	<b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY	<b>X</b>	<b>X</b>	<b>ACV40869R0</b>	<b>04/15/2021</b>	<b>04/15/2022</b>	COMBINED SINGLE LIMIT (Ea accident) \$ <b>1,000,000</b> BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
<b>A</b>	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ <b>10,000</b>	<b>X</b>	<b>X</b>	<b>CPU40660I0</b>	<b>04/15/2021</b>	<b>04/15/2022</b>	EACH OCCURRENCE \$ <b>2,000,000</b> AGGREGATE \$ <b>2,000,000</b> \$
<b>A</b>	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N If yes, describe under DESCRIPTION OF OPERATIONS below	<b>N</b>	<b>A</b>	<b>CPM40611L0</b> <b>WA STOP GAP</b>	<b>04/15/2021</b>	<b>04/15/2022</b>	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ <b>1,000,000</b> E.L. DISEASE - EA EMPLOYEE \$ <b>1,000,000</b> E.L. DISEASE - POLICY LIMIT \$ <b>1,000,000</b>

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**Fulton County Government, its officials, officers and employees are included as additional insured except workers comp per blanket endorsements with respect to liability out of the named insured's operation as required by written contract. It's a primary & non-contributory. Waiver of subrogation shall apply to all insurance.**

**CERTIFICATE HOLDER****CANCELLATION**

<b>Fulton County Government</b> <b>Purchasing Dept</b> <b>130 Peachtree St SW Ste 1168</b> <b>Atlanta, GA 30303</b>	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE 
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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

05/24/2021

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

<b>PRODUCER</b> Ogishima Insurance Agency Inc. 2535 Beacon Ave S  Seattle WA 98144-5125	<b>CONTACT</b> NAME: PHONE (A/C, No, Ext): E-MAIL: ADDRESS: INSURER(S) AFFORDING COVERAGE INSURER A: Crum & Forster Specialty Insurance Co. INSURER B: INSURER C: INSURER D: INSURER E: INSURER F:
<b>INSURED</b> Kubota Membrane USA Corporation 11807 North Creek Pkwy S Ste B-109  Bothell WA 98011	NAIC # 44520

**COVERAGES****CERTIFICATE NUMBER:****REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC <input type="checkbox"/> OTHER:						EACH OCCURRENCE \$ DAMAGE TO RENTED PREMISES (Ea occurrence) \$ MED EXP (Any one person) \$ PERSONAL & ADV INJURY \$ GENERAL AGGREGATE \$ PRODUCTS - COMP/OP AGG \$ \$
	<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						COMBINED SINGLE LIMIT (Ea accident) \$ BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR <b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$ \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y / N	N / A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Contractor's Pollution Liability Professional Liability			PKC-109985	06/21/2020	06/21/2021	\$1,000,000 \$1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

\*\*\*Evidence Only\*\*\*

**CERTIFICATE HOLDER****CANCELLATION**

Kubota Membrane USA Corporation 11807 North Creek Pkwy S Ste B-109  Bothell WA 98011	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE
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THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

DESIGNATED PROJECT ENDORSEMENT SERVICE PROVIDERS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART  
CONTRACTORS POLLUTION LIABILITY COVERAGE PART  
ERRORS AND OMISSIONS LIABILITY COVERAGE PART

SCHEDULE

<b>Premises:</b>
Fulton County
<b>Project:</b>
Design Services - Membrane System

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

This insurance applies only to “bodily injury” and “property damage” arising out of:

- 1. The ownership, maintenance or use of the premises indicated in the Schedule shown above and operations necessary or incidental to those premises; or
- 2. The project indicated in the Schedule shown above.

ALL OTHER TERMS AND CONDITIONS OF THE POLICY REMAIN UNCHANGED.

# **ATTACHMENTS**

**Attachment 3 - Guaranteed  
Power Consumption Costs**

**Attachment 4 - Guaranteed  
Chemical Consumption Costs**

## COST PROPOSAL FORM B MAXIMUM POWER CONSUMPTION

GUARANTEED POWER CONSUMPTION		
Item	Condition	Power Consumption
1. Membrane System Guaranteed Maximum Power Consumption at Startup	Annual Average 25.3 MGD	<u>1,085</u> kWh/MG
2. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		<u>1,177</u> kWh/MG
3. Membrane System Guaranteed Maximum Power Consumption at Startup	Max Month 32.0 MGD	<u>1,076</u> kWh/MG
4. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		<u>1,143</u> kWh/MG
5. Membrane System Guaranteed Maximum Power Consumption at Startup	Max Week 45.5 MGD	<u>1,043</u> kWh/MG
6. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		<u>1,107</u> kWh/MG
7. Membrane System Guaranteed Maximum Power Consumption at Startup	Peak Day 64.0 MGD	<u>827</u> kWh/MG
8. Membrane System Guaranteed Maximum Power Consumption at End of Membrane Life		<u>866</u> kWh/MG

*Note: kWh/MG represents kilowatt-hours per million gallons of membrane permeate at the flow condition shown and at a permeate temperature of 20 degrees C.*

Equipment and systems specifically included in the stated maximum power consumption costs shall be listed below. The equipment listed and included in the total shall be the base bid equipment.

Basis of the estimation:

### 1) Equipment

Membrane Scour Air Blowers: Next Turbo GTB-T30, 450HP, 5 Duty + 1 Standby

RAS Pumps: KSB KRTK500-634, 235HP, 7 Duty + 1 Standby

Other equipment are not major contributor, so the power consumption of other equipment is not included in this estimation.

### 2) Membrane Tank Operation

Number of membrane units: Tank 1 through 9 = (38) SP600 units per tank. Tank 10 = (38) SP600 units and (2) SP900 units.

Number of tanks in filtration service: AAF = 6 tanks, MMF = 7 tanks, PWF = 8 tanks, PDF = 9 tanks

Non-filtration tanks: Inlet gate is closed so there is no RAS flow. Intermittent scour aeration is received.

Assuming that the Membrane Tank 10, which requires higher scour air flow rate, is always in filtration service.

### 3) Exclusion

The power consumption caused by the reasons below is not included in this guarantee:

Additional scour air required by excess influent flow/load conditions,

System operation outside of recommended procedures in the O&M manual, and/or

The loss generated on the primary side of the motor, such as VFD loss

## COST PROPOSAL FORM C MAXIMUM CHEMICAL USAGE

GUARANTEED CHEMICAL USAGE			
Item	Chemical	Condition	Maximum Chemical Usage
1. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Sodium Hypochlorite	Annual Average 25.3 MGD	<u>4.27</u> Gallons/MG
2. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
3. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.53</u> Gallons/MG
4. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
5. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Sodium Hypochlorite	Max Month 32.0 MGD	<u>4.27</u> Gallons/MG
6. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
7. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.53</u> Gallons/MG
8. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
9. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Sodium Hypochlorite	Max Week 45.5 MGD	<u>4.27</u> Gallons/MG
10. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
11. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.53</u> Gallons/MG
12. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
13. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Sodium Hypochlorite	Peak Day 64.0 MGD	<u>4.27</u> Gallons/MG
14. First Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			
15. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at Start-up	Citric Acid		<u>0.53</u> Gallons/MG
16. Second Chemical - Membrane System Guaranteed Maximum Chemical Usage at End of Membrane Life			

*Note: MG represents million gallons of membrane permeate at the flow condition shown and at a permeate temperature of 20 degrees C.*

Chemicals specifically included in the stated maximum chemical usages shall be listed below and shall correspond to the chemicals used in Technical Proposal Form A – if a third chemical is used, write-in corresponding information:



Basis of the estimation:

1) Flow events and duration

PDF = 3 non-consecutive days per year; PWF = 3 non-consecutive weeks per year; MMF = 3 months per year;

AAF = remaining 251 days per year

2) Number of Membrane Unit and Model

Number of membrane units: Tank 1 through 9 = (38) SP600 units per tank. Tank 10 = (38) SP600 units and (2) SP900 units.

3) Estimated chemical cleaning frequency

Four (4) cleaning with 0.5% by weight Sodium Hypochlorite per year, for addressing biological fouling.

One (1) cleaning with 1% by weight Citric Acid per year, for addressing mineral fouling.

4) Estimated amount of chemical to be consumed per year

44,316 gallons of 12.5% by weight Sodium Hypochlorite per year

5,540 gallons of 50% by weight Citric Acid per year

5) Estimated gallons/MG of chemical consumption

Total volume of wastewater anticipated to be treated in one year = 10.378 billion gallons

Estimated 12.5% by weight Sodium Hypochlorite in gallons/MG = 4.27 gallons/MG

Estimated 50% by weight Citric Acid in gallons/MG = 0.53 gallons/MG

6) Exclusion

Chemical consumption caused by the reasons below is not included in this guarantee:

Additional cleaning events triggered by excess influent flow/load conditions,

System operation outside of recommended procedures in the O&M manual,

Pre-feeding sequence, and/or

Extra chemical purchased to compensate the degradation during the storage

